Full wwPDB X-ray Structure Validation Report (i)

Mar 6, 2026 – 03:00 AM UTC

PDB ID	:	6O3M / pdb_00006o3m
Title	:	Unmodified tRNA(Pro) bound to Thermus thermophilus 70S (cognate)
Authors	:	Hoffer, E.D.; Subaramanian, S.; Hong, S.; Maehigashi, T.; Dunham, C.M.
Deposited on	:	2019-02-26
Resolution	:	3.97 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references (1)) were used in the production of this report:

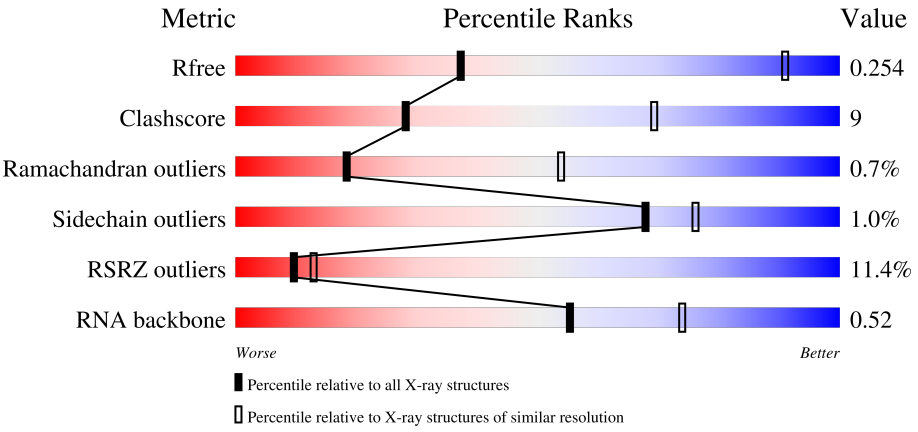
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.97 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1016 (4.18-3.78)
Clashscore	190562	1007 (4.16-3.80)
Ramachandran outliers	187476	1000 (4.18-3.78)
Sidechain outliers	187428	1131 (4.20-3.76)
RSRZ outliers	180081	1016 (4.18-3.78)
RNA backbone	3983	1017 (4.84-3.10)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	QA	1521	9% 51% 39% 9% .
1	XA	1521	10% 50% 40% 9% .
2	QB	256	9% 73% 18% 8%
2	XB	256	11% 71% 21% 8%

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Mol	Chain	Length	Quality of chain
3	QC	239	9% 60% 25% 14%
3	XC	239	11% 65% 21% 14%
4	QD	209	15% 73% 25%
4	XD	209	18% 67% 32%
5	QE	162	11% 73% 19% 7%
5	XE	162	10% 69% 24% 7%
6	QF	101	4% 76% 24%
6	XF	101	2% 88% 12%
7	QG	156	14% 71% 28%
7	XG	156	9% 76% 24%
8	QH	138	18% 69% 29%
8	XH	138	15% 67% 30%
9	QI	128	10% 68% 28%
9	XI	128	17% 70% 28%
10	QJ	105	18% 63% 30% 6%
10	XJ	105	21% 61% 30% 9%
11	QK	129	7% 70% 22% 8%
11	XK	129	9% 69% 21% 10%
12	QL	132	22% 68% 25% 5%
12	XL	132	22% 72% 19% 8%
13	QM	126	15% 58% 34% 5%
13	XM	126	17% 67% 25% 6%
14	QN	61	30% 72% 26%
14	XN	61	25% 59% 39%
15	QO	89	3% 75% 24%

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Mol	Chain	Length	Quality of chain
15	XO	89	11% 78% 20%
16	QP	88	17% 78% 17% 5%
16	XP	88	7% 84% 11% 5%
17	QQ	105	18% 81% 14% 5%
17	XQ	105	17% 74% 21% 5%
18	QR	88	% 63% 17% 20%
18	XR	88	2% 63% 17% 20%
19	QS	93	12% 60% 29% 11%
19	XS	93	29% 71% 19% 10%
20	QT	106	19% 75% 19% 7%
20	XT	106	23% 71% 23% 7%
21	QU	27	59% 74% 19% 7%
21	XU	27	48% 59% 33% 7%
22	QV	77	12% 53% 36% 10%
22	XV	77	27% 57% 32% 10%
23	QX	19	79% 32% 53% 11% 5%
23	XX	19	84% 37% 58% 5%
24	RA	2915	7% 51% 40% 8%
24	YA	2915	6% 51% 39% 8%
25	RB	122	7% 62% 28% 8%
25	YB	122	2% 63% 26% 9%
26	RD	276	19% 73% 25%
26	YD	276	19% 74% 24%
27	RE	206	15% 68% 30%
27	YE	206	17% 71% 27%

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Mol	Chain	Length	Quality of chain
28	RF	210	10% 80% 16%
28	YF	210	13% 82% 13%
29	RG	182	10% 71% 26%
29	YG	182	4% 66% 30%
30	RH	180	11% 68% 27%
30	YH	180	9% 76% 19%
31	RI	148	11% 80% 18%
31	YI	148	5% 86% 11%
32	RN	140	7% 76% 21%
32	YN	140	10% 76% 21%
33	RO	122	18% 74% 26%
33	YO	122	5% 80% 20%
34	RP	150	24% 69% 31%
34	YP	150	21% 73% 25%
35	RQ	141	11% 72% 27%
35	YQ	141	15% 72% 28%
36	RR	118	14% 75% 24%
36	YR	118	17% 82% 17%
37	RS	112	16% 71% 27%
37	YS	112	11% 74% 25%
38	RT	146	9% 71% 21% 6%
38	YT	146	14% 68% 24% 6%
39	RU	118	15% 83% 14%
39	YU	118	10% 80% 18%
40	RV	101	10% 73% 23%

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Mol	Chain	Length	Quality of chain
40	YV	101	13% 74% 24%
41	RW	113	15% 78% 22%
41	YW	113	6% 86% 13%
42	RX	96	18% 81% 15%
42	YX	96	18% 82% 14%
43	RY	110	18% 75% 22%
43	YY	110	15% 72% 25%
44	RZ	206	6% 65% 22% 11%
44	YZ	206	8% 68% 19% 11%
45	R0	85	18% 76% 19% 5%
45	Y0	85	16% 66% 21% 13%
46	R1	98	22% 81% 17%
46	Y1	98	24% 78% 16% 5%
47	R2	72	12% 67% 28%
47	Y2	72	12% 74% 22%
48	R3	60	10% 82% 17%
48	Y3	60	13% 75% 17% 7%
49	R4	71	72% 25%
49	Y4	71	6% 56% 38%
50	R5	60	7% 72% 27%
50	Y5	60	3% 73% 23%
51	R6	54	2% 80% 19%
51	Y6	54	9% 69% 30%
52	R7	49	18% 86% 10%
52	Y7	49	12% 82% 16%

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Mol	Chain	Length	Quality of chain
53	R8	65	26% 68% 26% 5%
53	Y8	65	29% 71% 25%
54	R9	37	30% 73% 27%
54	Y9	37	35% 84% 16%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	QA	1635	-	-	-	X
55	MG	RA	3006	-	-	-	X
55	MG	RA	3025	-	-	-	X
55	MG	RA	3151	-	-	-	X
55	MG	RA	3186	-	-	-	X
55	MG	RA	3222	-	-	-	X
55	MG	RA	3249	-	-	-	X
55	MG	RA	3251	-	-	-	X
55	MG	RA	3252	-	-	-	X
55	MG	RA	3270	-	-	-	X
55	MG	RA	3297	-	-	-	X
55	MG	RA	3311	-	-	-	X
55	MG	RA	3341	-	-	-	X
55	MG	RA	3347	-	-	-	X
55	MG	RA	3349	-	-	-	X
55	MG	RA	3359	-	-	-	X
55	MG	XA	1607	-	-	-	X
55	MG	YA	3011	-	-	-	X
55	MG	YA	3045	-	-	-	X
55	MG	YA	3062	-	-	-	X
55	MG	YA	3100	-	-	-	X
55	MG	YA	3113	-	-	-	X
55	MG	YA	3135	-	-	-	X
55	MG	YA	3158	-	-	-	X
55	MG	YA	3181	-	-	-	X
55	MG	YA	3200	-	-	-	X
55	MG	YA	3211	-	-	-	X
55	MG	YA	3238	-	-	-	X
55	MG	YA	3254	-	-	-	X
55	MG	YA	3257	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	YA	3264	-	-	-	X
55	MG	YA	3266	-	-	-	X
55	MG	YA	3270	-	-	-	X
55	MG	YA	3280	-	-	-	X
55	MG	YA	3281	-	-	-	X
55	MG	YA	3285	-	-	-	X
55	MG	YA	3297	-	-	-	X
55	MG	YA	3311	-	-	-	X
55	MG	YA	3312	-	-	-	X
55	MG	YA	3319	-	-	-	X
55	MG	YA	3326	-	-	-	X
55	MG	YA	3339	-	-	-	X
55	MG	YA	3388	-	-	-	X
55	MG	YA	3402	-	-	-	X
55	MG	YA	3409	-	-	-	X
55	MG	YA	3422	-	-	-	X
55	MG	YA	3424	-	-	-	X
55	MG	YA	3440	-	-	-	X
55	MG	YD	302	-	-	-	X
56	SF4	XD	301	-	-	X	-

2 Entry composition (i)

There are 57 unique types of molecules in this entry. The entry contains 291782 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	QA	1500	Total 32247	C 14353	N 5981	O 10414	P 1499	0	0	0
1	XA	1500	Total 32249	C 14354	N 5984	O 10412	P 1499	0	0	0

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	QB	235	Total 1907	C 1217	N 342	O 343	S 5	0	0	0
2	XB	236	Total 1915	C 1223	N 343	O 344	S 5	0	0	0

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	QC	205	Total 1605	C 1011	N 313	O 280	S 1	0	0	0
3	XC	205	Total 1605	C 1011	N 313	O 280	S 1	0	0	0

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	QD	208	Total 1703	C 1066	N 339	O 291	S 7	0	0	0
4	XD	208	Total 1703	C 1066	N 339	O 291	S 7	0	0	0

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	QE	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
5	XE	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	QF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	XF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	QG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	XG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	QH	137	Total	C	N	O	S	0	0	0
			1108	700	214	192	2			
8	XH	137	Total	C	N	O	S	0	0	0
			1108	700	214	192	2			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	QI	125	Total	C	N	O	0	0	0
			989	627	191	171			
9	XI	126	Total	C	N	O	0	0	0
			998	633	193	172			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	QJ	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	XJ	96	Total	C	N	O	S	0	0	0
			777	487	153	136	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	QK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	XK	116	Total	C	N	O	S	0	0	0
			864	537	164	160	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	QL	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			
12	XL	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	QM	120	Total	C	N	O	S	0	0	0
			955	591	197	165	2			
13	XM	119	Total	C	N	O	S	0	0	0
			946	585	195	164	2			

- Molecule 14 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	QN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	XN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	QO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	XO	87	Total	C	N	O	S	0	0	0
			729	457	146	124	2			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	QP	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
16	XP	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	QQ	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	XQ	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	QR	70	Total	C	N	O	0	0	0
			574	367	112	95			
18	XR	70	Total	C	N	O	0	0	0
			574	367	112	95			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	QS	83	Total	C	N	O	S	0	0	0
			665	424	124	115	2			
19	XS	84	Total	C	N	O	S	0	0	0
			674	430	126	116	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	QT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
20	XT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 21 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	QU	25	Total 217	C 134	N 52	O 31	0	0	0
21	XU	25	Total 217	C 134	N 52	O 31	0	0	0

- Molecule 22 is a RNA chain called P-site ASLPro.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	QV	77	Total 1647	C 733	N 295	O 542	P 77	0	0	0
22	XV	77	Total 1647	C 733	N 295	O 542	P 77	0	0	0

- Molecule 23 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	QX	19	Total 418	C 186	N 86	O 127	P 19	0	0	0
23	XX	19	Total 418	C 186	N 86	O 127	P 19	0	0	0

- Molecule 24 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	RA	2882	Total 62071	C 27627	N 11611	O 19952	P 2881	0	0	0
24	YA	2883	Total 62091	C 27636	N 11613	O 19960	P 2882	0	0	0

- Molecule 25 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	RB	120	Total 2573	C 1146	N 476	O 832	P 119	0	0	0
25	YB	120	Total 2573	C 1146	N 476	O 832	P 119	0	0	0

- Molecule 26 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	RD	272	Total 2115	C 1335	N 420	O 357	S 3	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	YD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			

- Molecule 27 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	RE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
27	YE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 28 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	RF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
28	YF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			

- Molecule 29 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	RG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			
29	YG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 30 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	RH	174	Total	C	N	O	S	0	0	0
			1336	848	251	236	1			
30	YH	174	Total	C	N	O	S	0	0	0
			1336	848	251	236	1			

- Molecule 31 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	RI	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			
31	YI	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 32 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	RN	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
32	YN	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 33 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	RO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
33	YO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 34 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	RP	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			
34	YP	147	Total	C	N	O	S	0	0	0
			1122	698	229	192	3			

- Molecule 35 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	RQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
35	YQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 36 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
36	RR	117	Total	C	N	O	0	0	0
			960	599	202	159			
36	YR	117	Total	C	N	O	0	0	0
			960	599	202	159			

- Molecule 37 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
37	RS	111	Total 882	C 556	N 176	O 150	0	0	0
37	YS	111	Total 882	C 556	N 176	O 150	0	0	0

- Molecule 38 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	RT	137	Total 1141	C 710	N 234	O 196	S 1	0	0	0
38	YT	137	Total 1141	C 710	N 234	O 196	S 1	0	0	0

- Molecule 39 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	RU	117	Total 964	C 610	N 202	O 151	S 1	0	0	0
39	YU	117	Total 964	C 610	N 202	O 151	S 1	0	0	0

- Molecule 40 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	RV	101	Total 779	C 501	N 142	O 135	S 1	0	0	0
40	YV	101	Total 779	C 501	N 142	O 135	S 1	0	0	0

- Molecule 41 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	RW	113	Total 900	C 566	N 177	O 155	S 2	0	0	0
41	YW	113	Total 900	C 566	N 177	O 155	S 2	0	0	0

- Molecule 42 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	RX	92	Total 725	C 471	N 131	O 123	0	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	YX	92	Total 725	C 471	N 131	O 123	0	0	0

- Molecule 43 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	RY	107	Total 818	C 525	N 155	O 132	S 6	0	0	0
43	YY	107	Total 818	C 525	N 155	O 132	S 6	0	0	0

- Molecule 44 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	RZ	183	Total 1461	C 933	N 260	O 265	S 3	0	0	0
44	YZ	183	Total 1461	C 933	N 260	O 265	S 3	0	0	0

- Molecule 45 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	R0	81	Total 643	C 398	N 137	O 107	S 1	0	0	0
45	Y0	74	Total 593	C 367	N 126	O 99	S 1	0	0	0

- Molecule 46 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	R1	97	Total 763	C 481	N 150	O 131	S 1	0	0	0
46	Y1	93	Total 729	C 457	N 145	O 126	S 1	0	0	0

- Molecule 47 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	R2	69	Total 581	C 358	N 118	O 104	S 1	0	0	0
47	Y2	69	Total 581	C 358	N 118	O 104	S 1	0	0	0

- Molecule 48 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	R3	59	Total	C	N	O	0	0	0
			469	298	90	81			
48	Y3	59	Total	C	N	O	0	0	0
			469	298	90	81			

- Molecule 49 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	R4	69	Total	C	N	O	S	0	0	0
			565	356	103	101	5			
49	Y4	69	Total	C	N	O	S	0	0	0
			565	356	103	101	5			

- Molecule 50 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	R5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
50	Y5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 51 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	R6	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
51	Y6	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			

- Molecule 52 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	R7	47	Total	C	N	O	S	0	0	0
			409	251	102	54	2			
52	Y7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 53 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	R8	64	Total 517	C 331	N 102	O 82	S 2	0	0	0
53	Y8	64	Total 517	C 331	N 102	O 82	S 2	0	0	0

- Molecule 54 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	R9	37	Total 307	C 188	N 68	O 47	S 4	0	0	0
54	Y9	37	Total 307	C 188	N 68	O 47	S 4	0	0	0

- Molecule 55 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	QA	69	Total 69	Mg 69	0	0
55	QE	1	Total 1	Mg 1	0	0
55	QH	1	Total 1	Mg 1	0	0
55	QV	1	Total 1	Mg 1	0	0
55	RA	381	Total 381	Mg 381	0	0
55	RB	9	Total 9	Mg 9	0	0
55	RD	1	Total 1	Mg 1	0	0
55	RE	1	Total 1	Mg 1	0	0
55	RQ	1	Total 1	Mg 1	0	0
55	R1	1	Total 1	Mg 1	0	0
55	XA	67	Total 67	Mg 67	0	0
55	XE	1	Total 1	Mg 1	0	0
55	YA	454	Total 454	Mg 454	0	0
55	YB	8	Total 8	Mg 8	0	0

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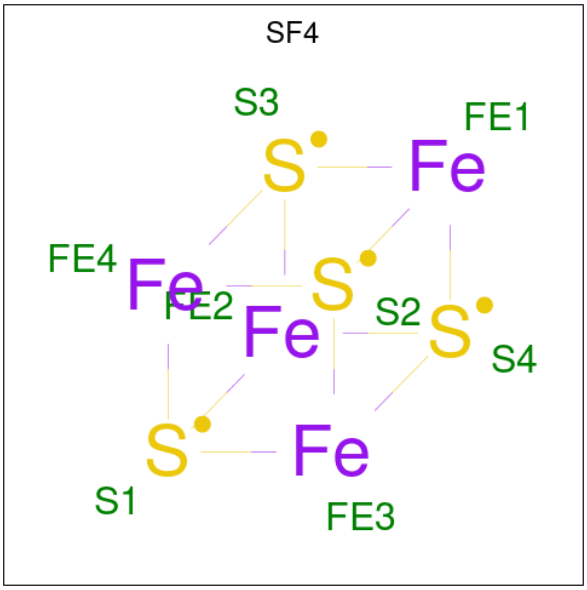
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	YD	2	Total Mg 2 2	0	0
55	YE	1	Total Mg 1 1	0	0
55	YP	1	Total Mg 1 1	0	0
55	YQ	2	Total Mg 2 2	0	0
55	YR	2	Total Mg 2 2	0	0
55	Y0	1	Total Mg 1 1	0	0
55	Y5	1	Total Mg 1 1	0	0
55	Y7	2	Total Mg 2 2	0	0

- Molecule 56 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	QD	1	Total Fe S 8 4 4	0	0
56	XD	1	Total Fe S 8 4 4	0	0

- Molecule 57 is ZINC ION (CCD ID: ZN) (formula: Zn).

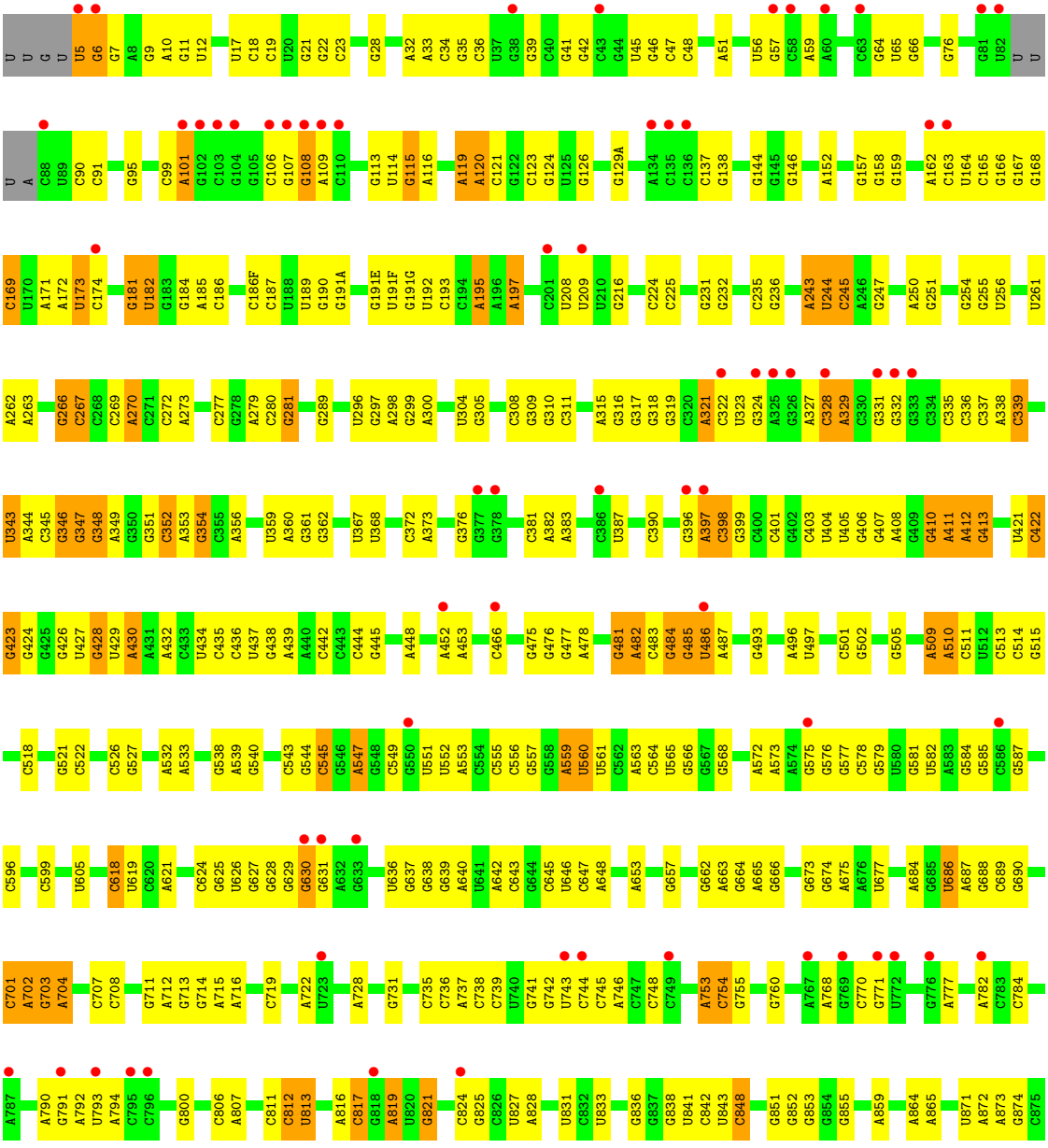
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	QN	1	Total Zn 1 1	0	0
57	RY	1	Total Zn 1 1	0	0
57	R4	1	Total Zn 1 1	0	0
57	R5	1	Total Zn 1 1	0	0
57	R6	1	Total Zn 1 1	0	0
57	R9	1	Total Zn 1 1	0	0
57	XN	1	Total Zn 1 1	0	0
57	YY	1	Total Zn 1 1	0	0
57	Y4	1	Total Zn 1 1	0	0
57	Y5	1	Total Zn 1 1	0	0
57	Y6	1	Total Zn 1 1	0	0
57	Y9	1	Total Zn 1 1	0	0

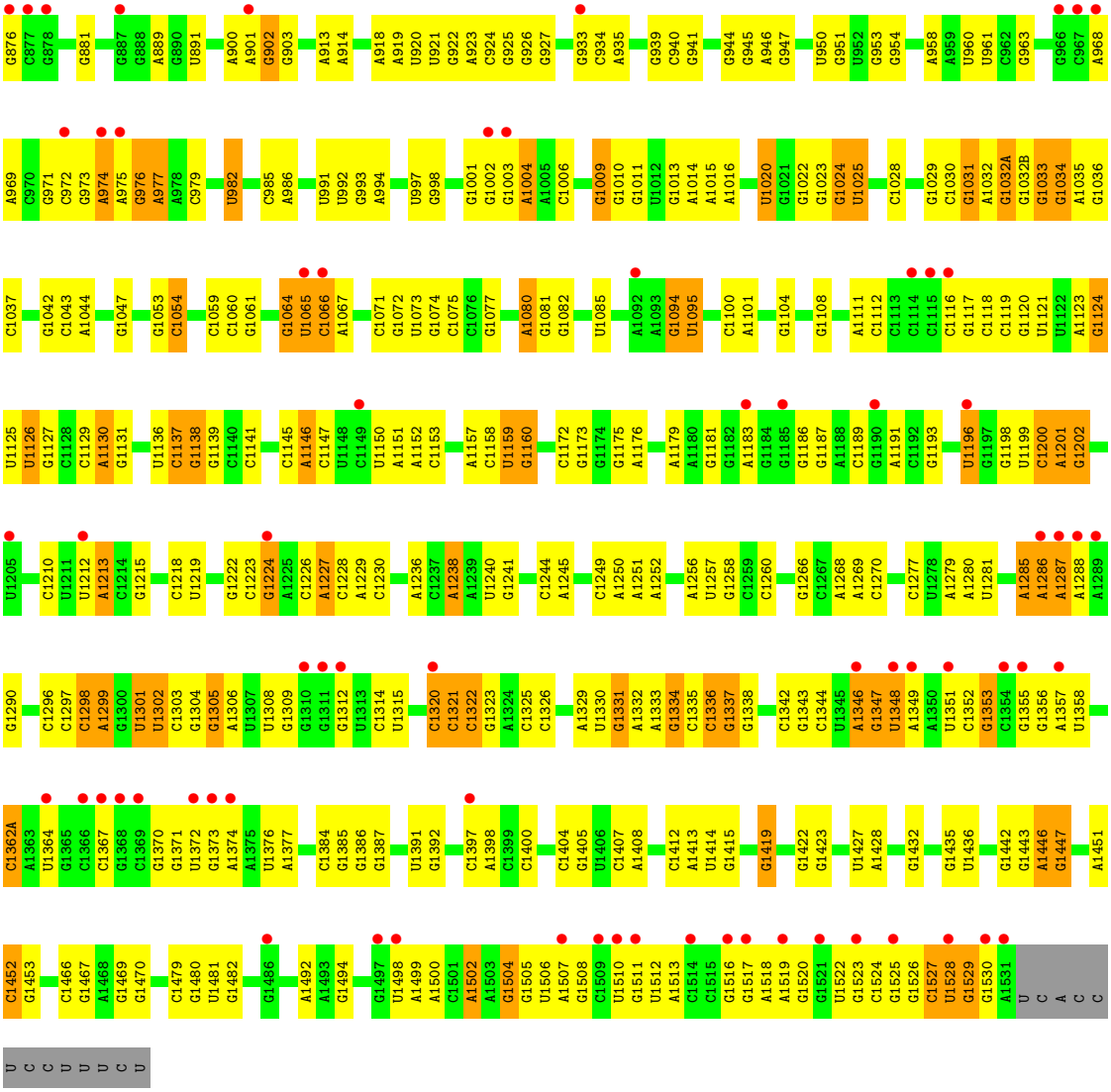
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: 16S rRNA

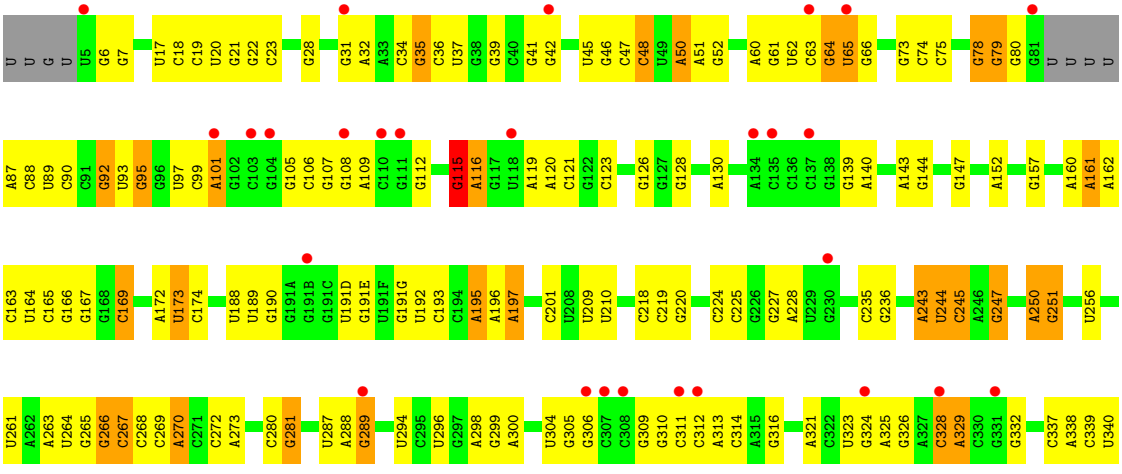
Chain QA:

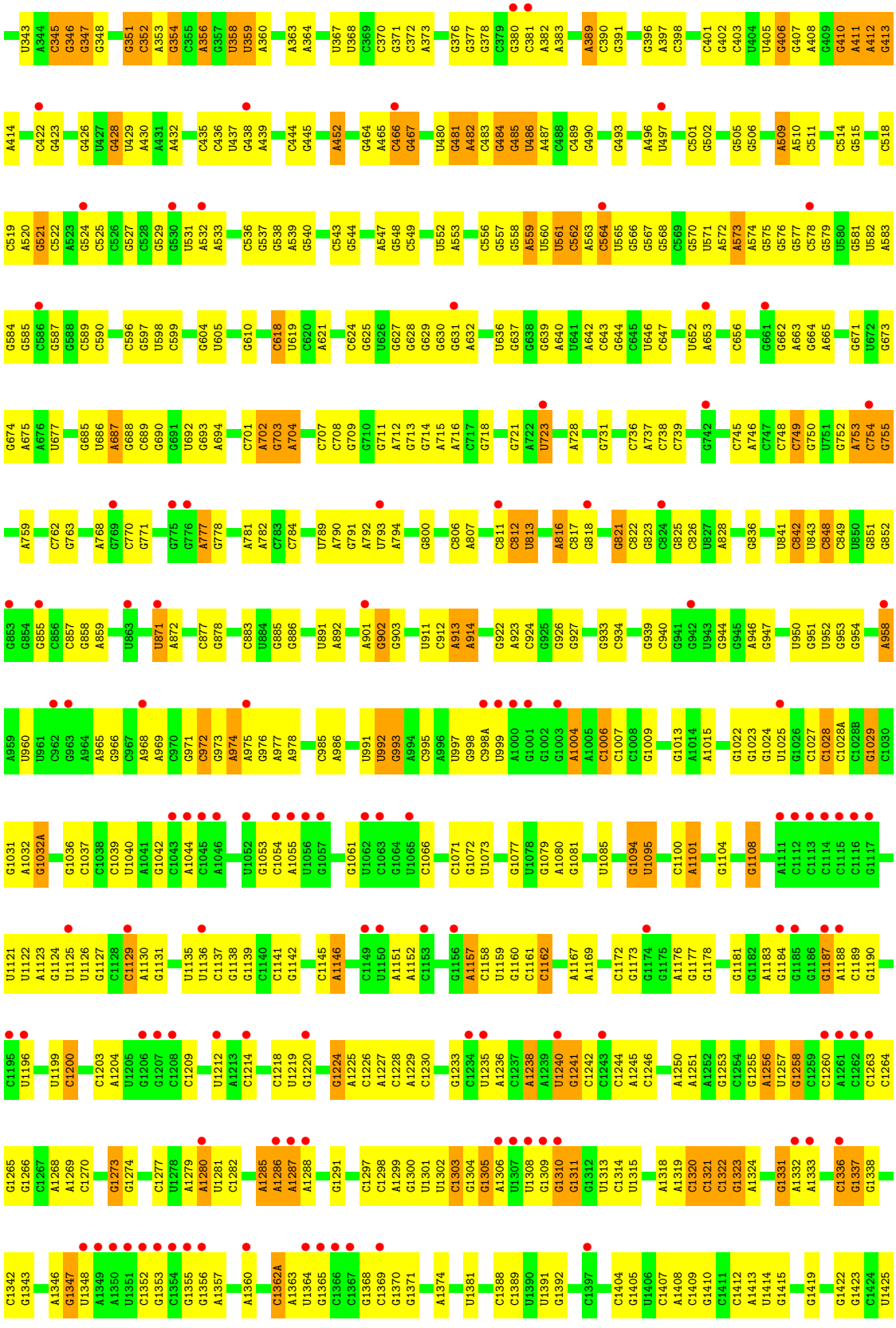


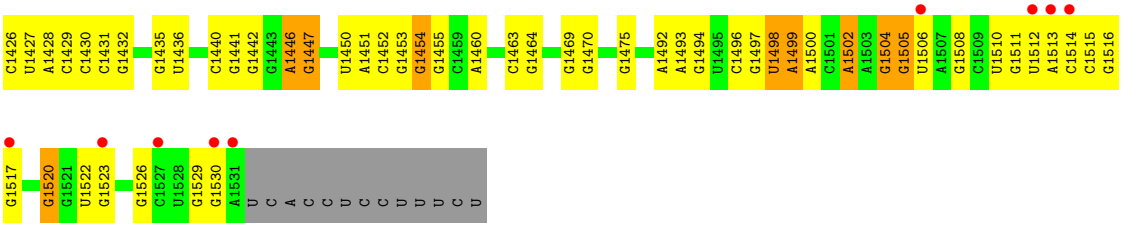


• Molecule 1: 16S rRNA

Chain XA:

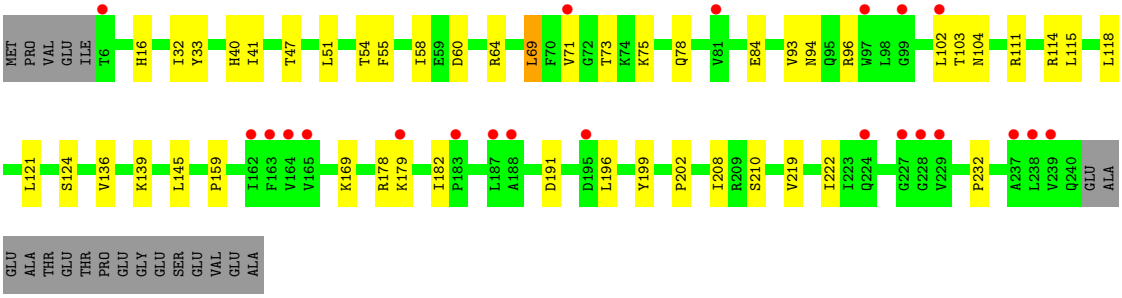






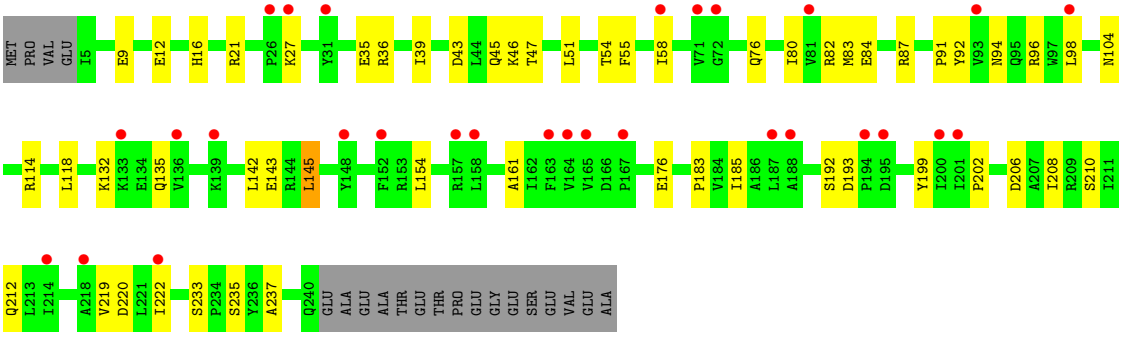
• Molecule 2: 30S ribosomal protein S2

Chain QB:



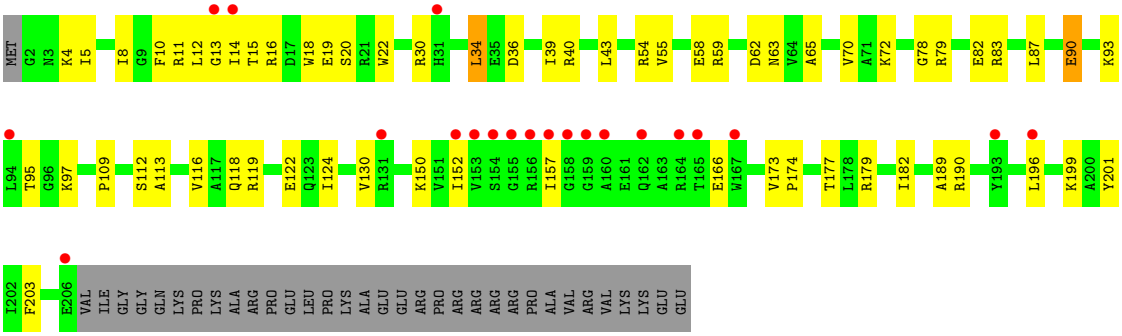
• Molecule 2: 30S ribosomal protein S2

Chain XB:



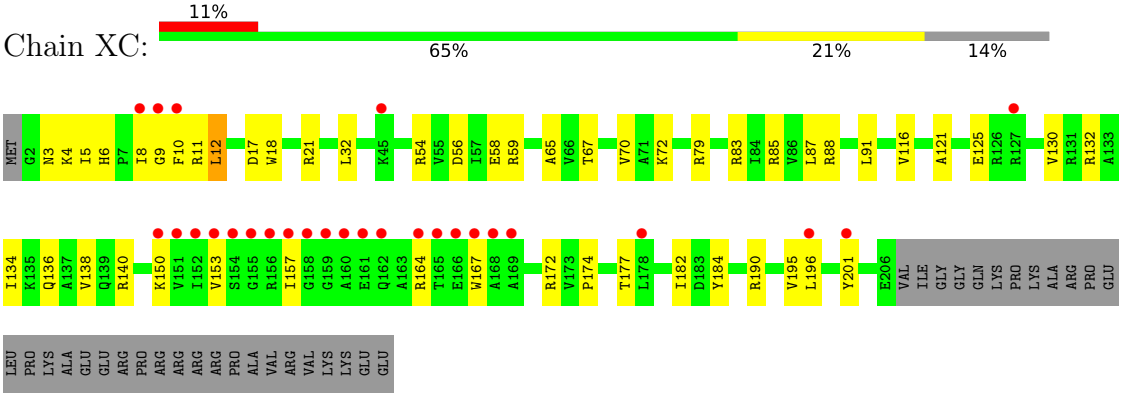
• Molecule 3: 30S ribosomal protein S3

Chain QC:



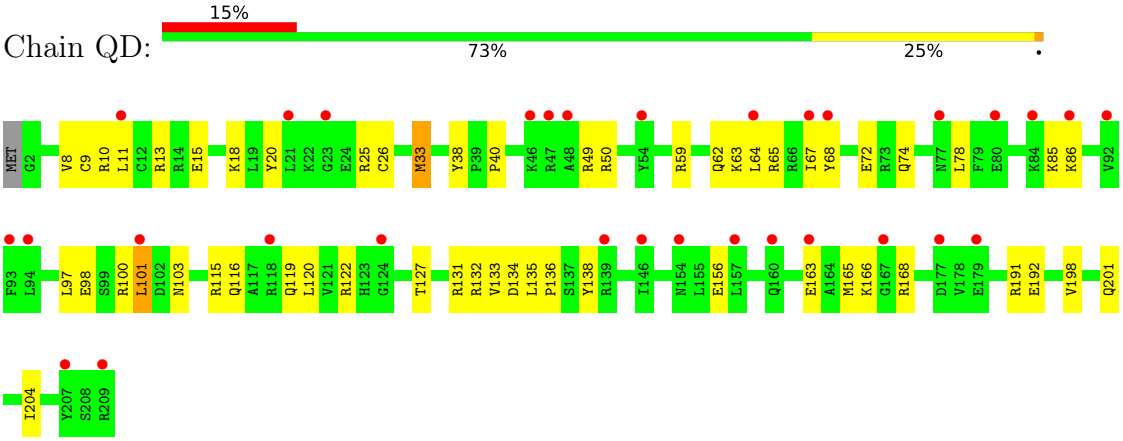
• Molecule 3: 30S ribosomal protein S3

Chain XC:



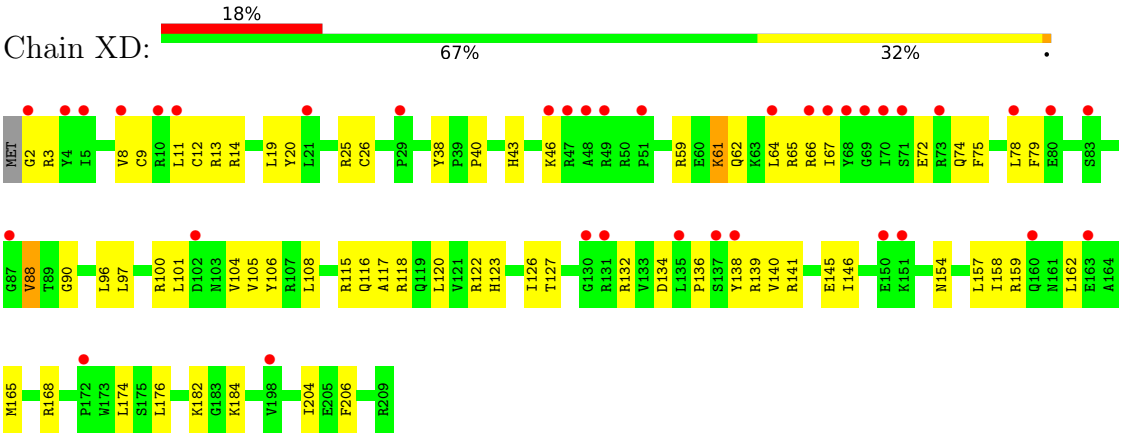
• Molecule 4: 30S ribosomal protein S4

Chain QD:



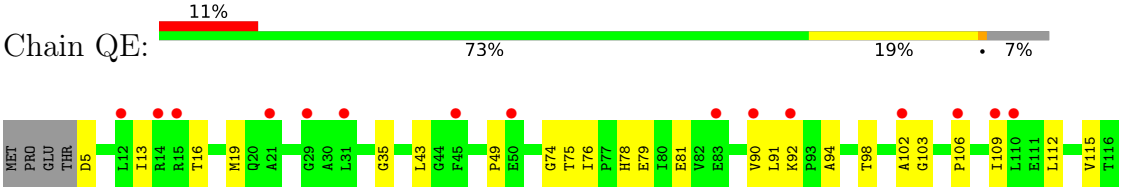
• Molecule 4: 30S ribosomal protein S4

Chain XD:



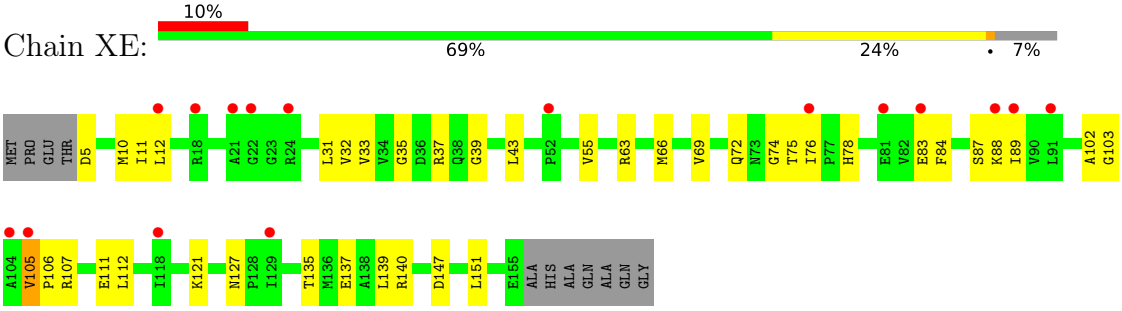
• Molecule 5: 30S ribosomal protein S5

Chain QE:



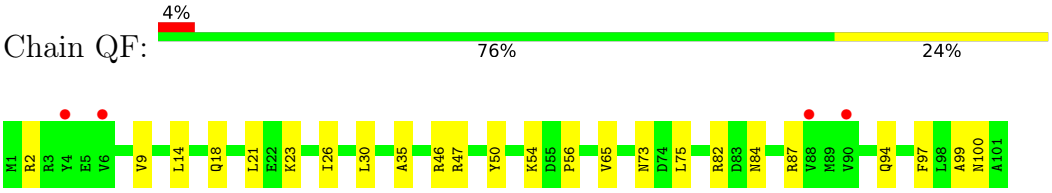
• Molecule 5: 30S ribosomal protein S5

Chain XE:



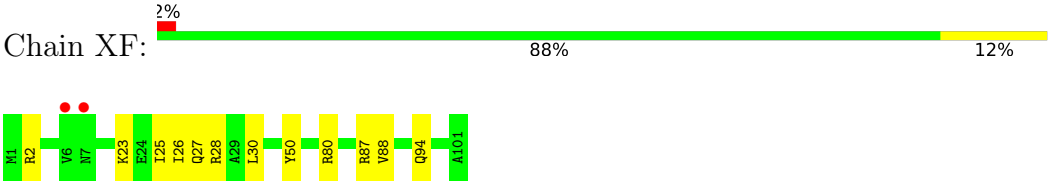
• Molecule 6: 30S ribosomal protein S6

Chain QF:



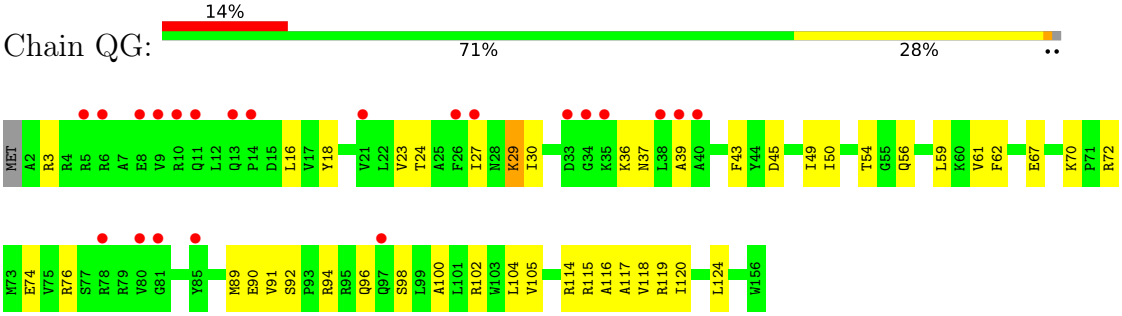
• Molecule 6: 30S ribosomal protein S6

Chain XF:



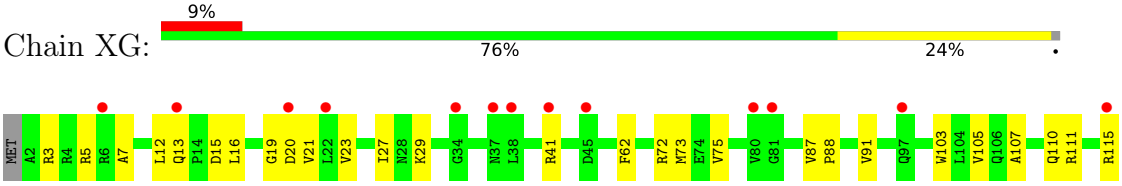
• Molecule 7: 30S ribosomal protein S7

Chain QG:

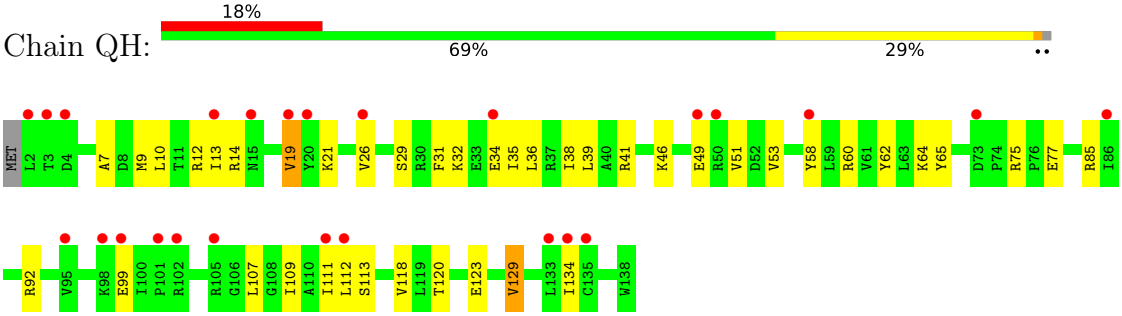


• Molecule 7: 30S ribosomal protein S7

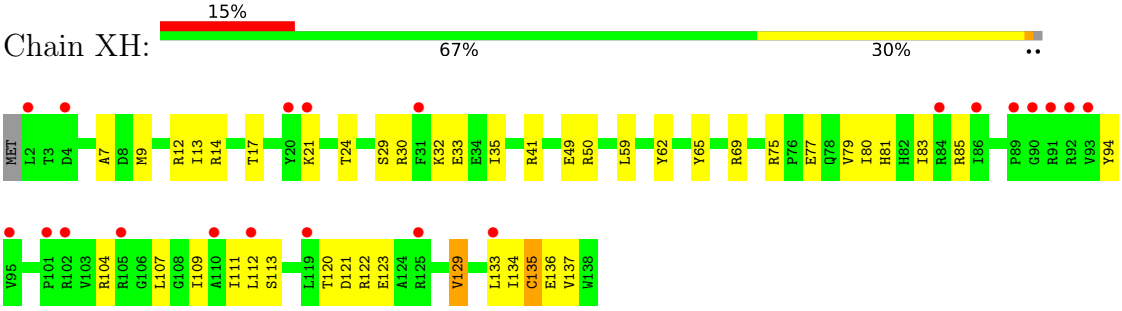
Chain XG:



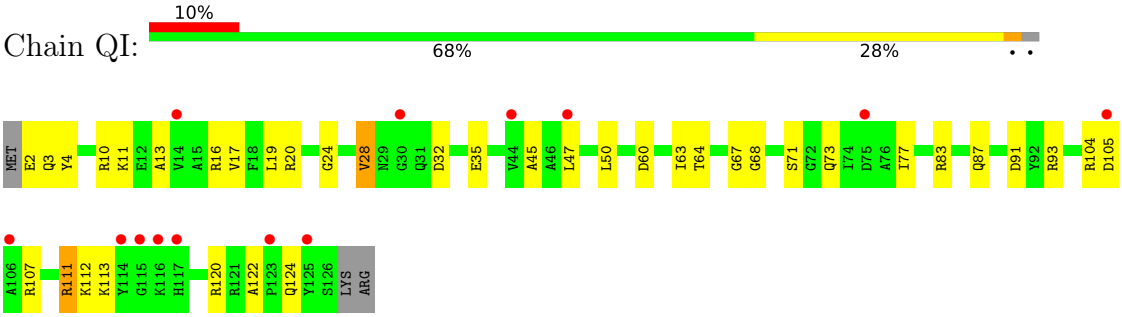
• Molecule 8: 30S ribosomal protein S8



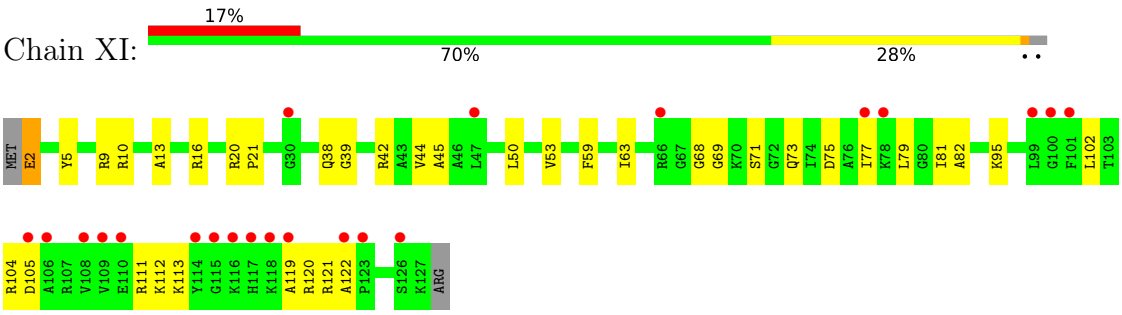
• Molecule 8: 30S ribosomal protein S8



• Molecule 9: 30S ribosomal protein S9

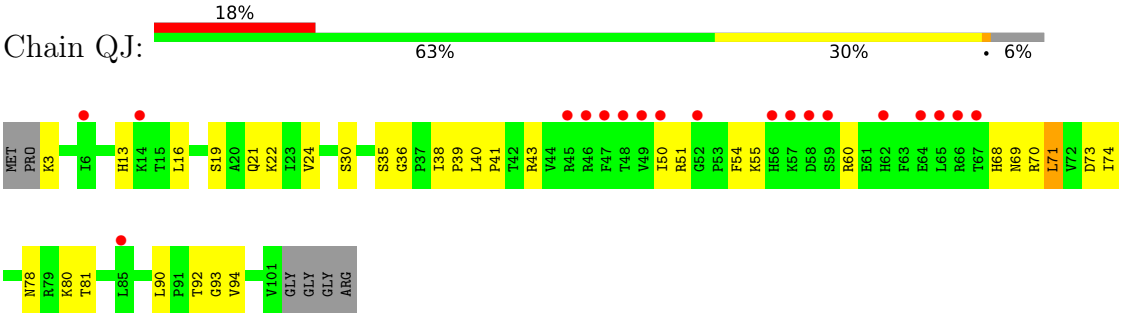


• Molecule 9: 30S ribosomal protein S9



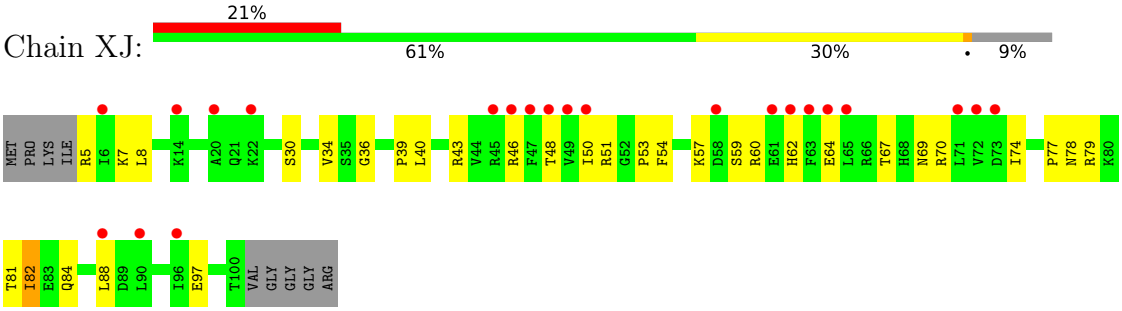
• Molecule 10: 30S ribosomal protein S10

Chain QJ:



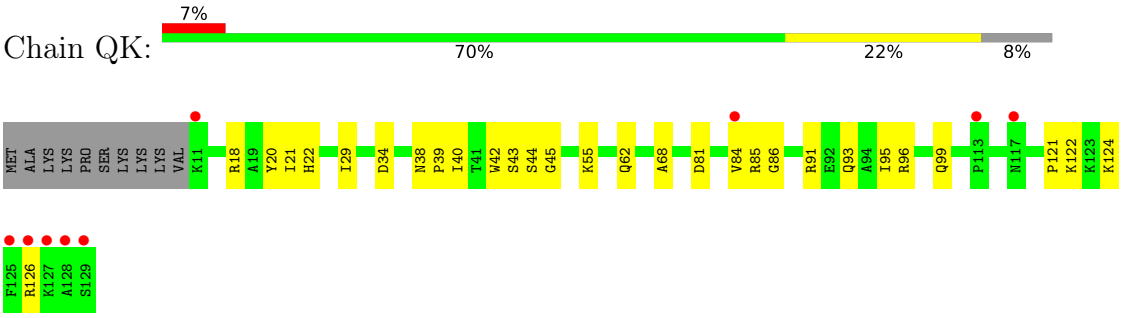
• Molecule 10: 30S ribosomal protein S10

Chain XJ:



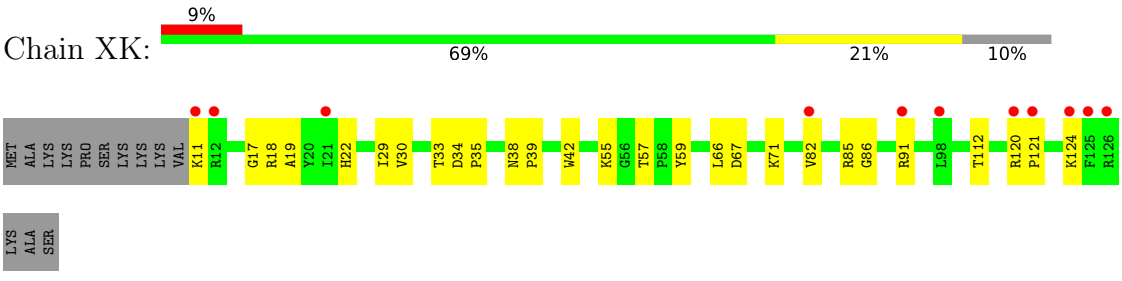
• Molecule 11: 30S ribosomal protein S11

Chain QK:



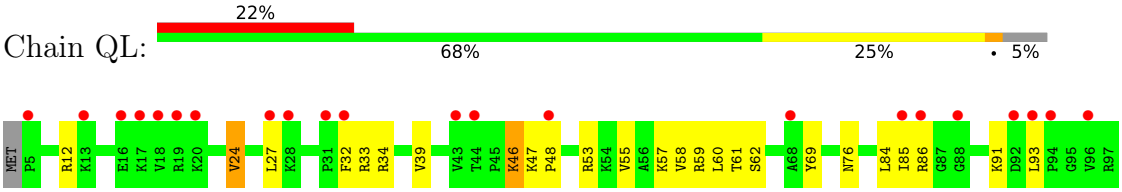
• Molecule 11: 30S ribosomal protein S11

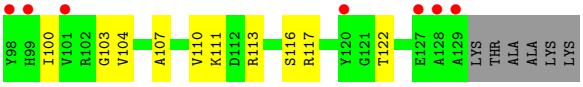
Chain XK:



• Molecule 12: 30S ribosomal protein S12

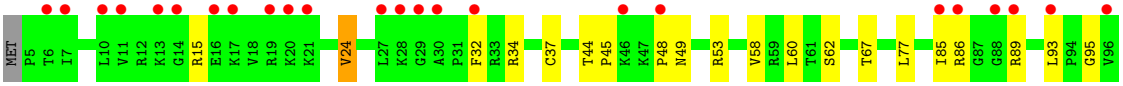
Chain QL:

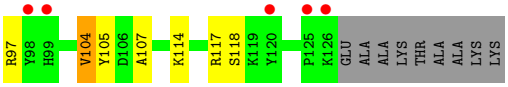




• Molecule 12: 30S ribosomal protein S12

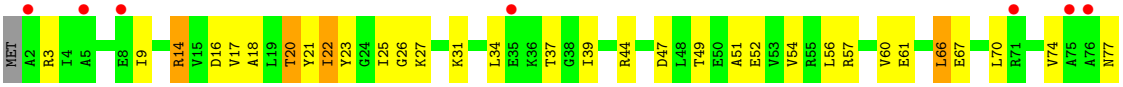
Chain XL:

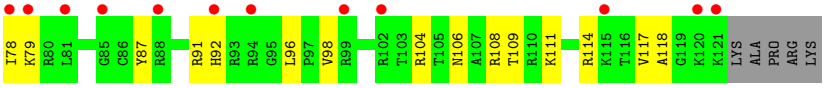




• Molecule 13: 30S ribosomal protein S13

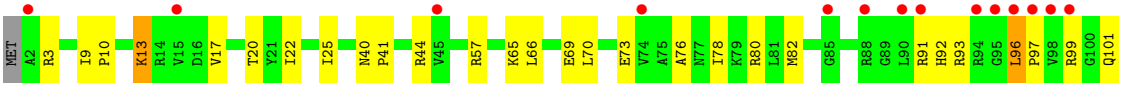
Chain QM:

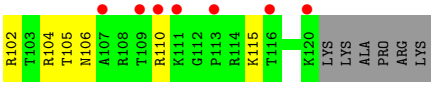




• Molecule 13: 30S ribosomal protein S13

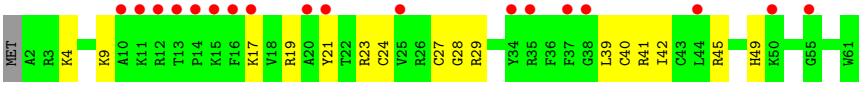
Chain XM:





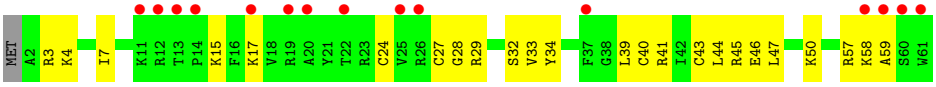
• Molecule 14: 30S ribosomal protein S14 type Z

Chain QN:

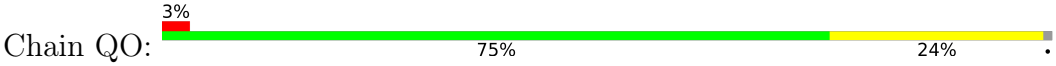


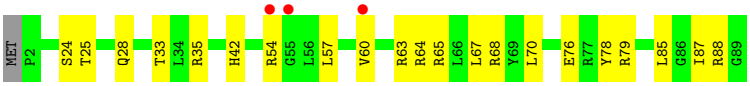
• Molecule 14: 30S ribosomal protein S14 type Z

Chain XN:

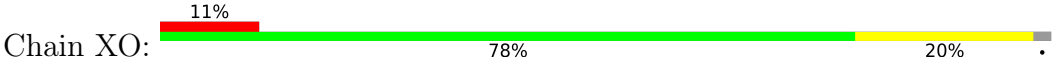


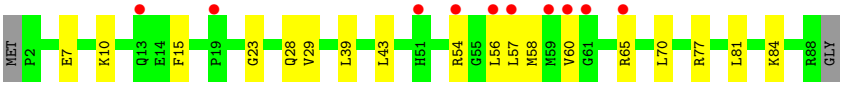
• Molecule 15: 30S ribosomal protein S15



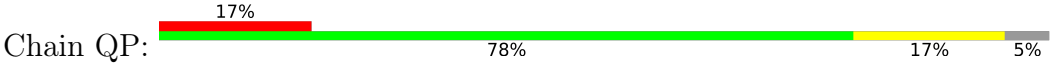


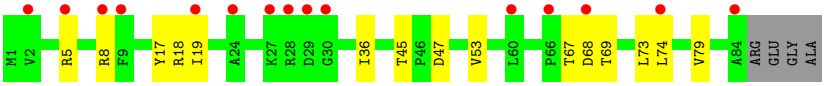
• Molecule 15: 30S ribosomal protein S15



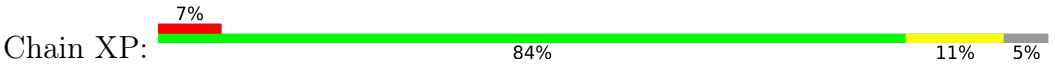


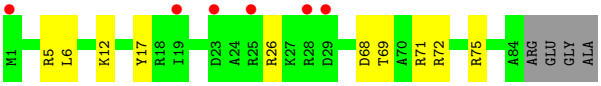
• Molecule 16: 30S ribosomal protein S16



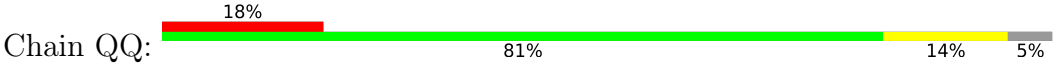


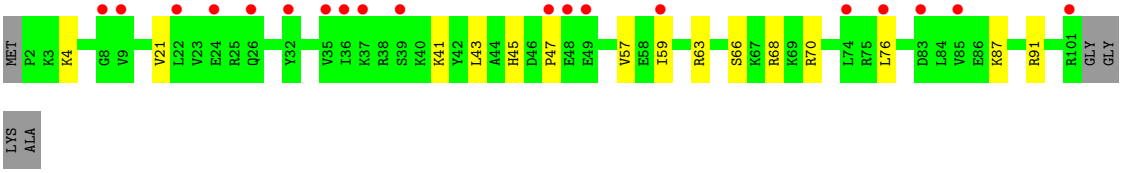
• Molecule 16: 30S ribosomal protein S16



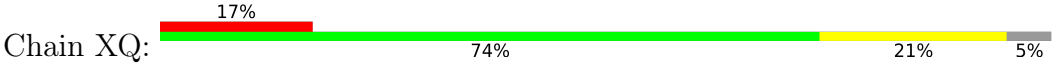


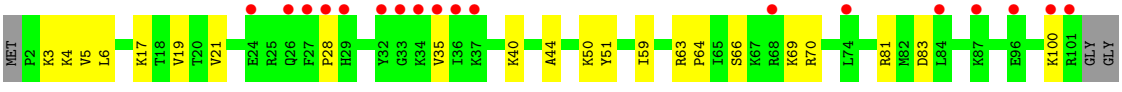
• Molecule 17: 30S ribosomal protein S17





• Molecule 17: 30S ribosomal protein S17



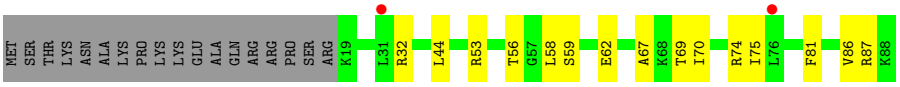


• Molecule 18: 30S ribosomal protein S18

Chain QR:

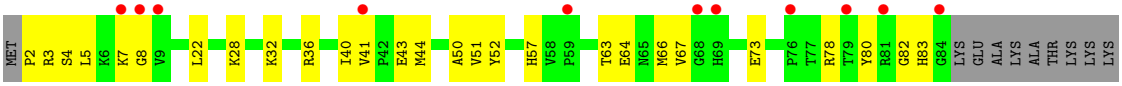
• Molecule 18: 30S ribosomal protein S18

Chain XR:



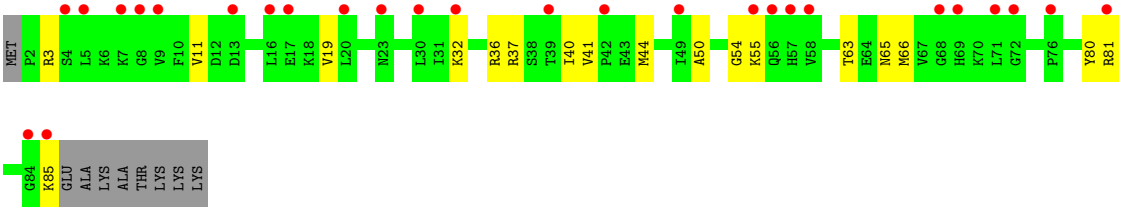
• Molecule 19: 30S ribosomal protein S19

Chain QS:



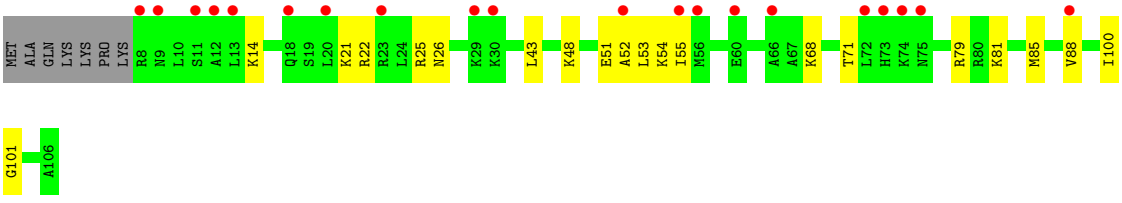
• Molecule 19: 30S ribosomal protein S19

Chain XS:



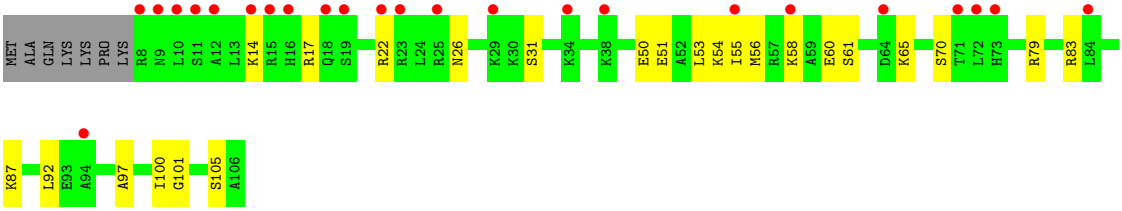
• Molecule 20: 30S ribosomal protein S20

Chain QT:

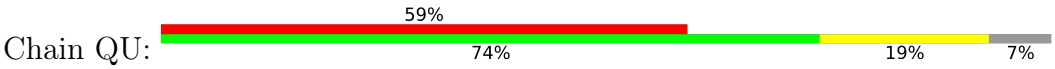


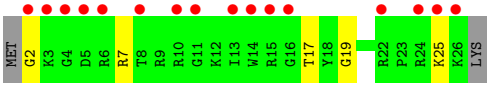
• Molecule 20: 30S ribosomal protein S20

Chain XT:

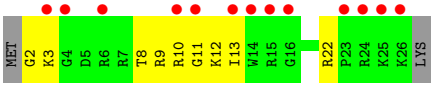


• Molecule 21: 30S ribosomal protein Thx

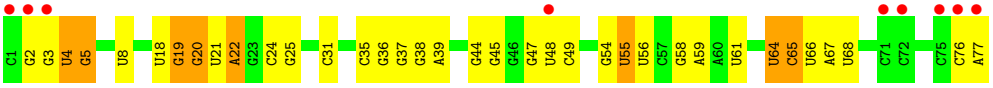




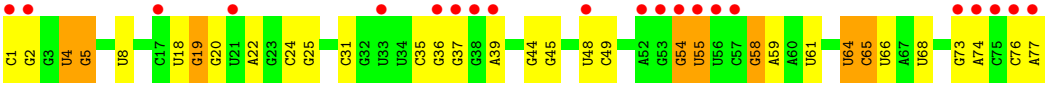
• Molecule 21: 30S ribosomal protein Thx



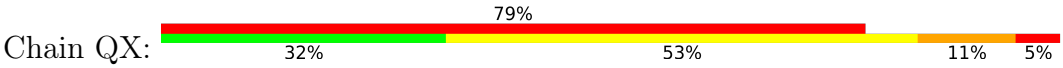
• Molecule 22: P-site ASLPro

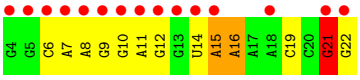


• Molecule 22: P-site ASLPro

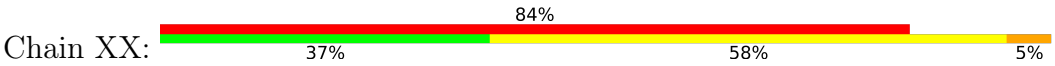


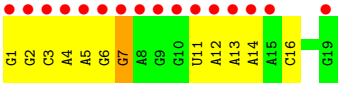
• Molecule 23: mRNA





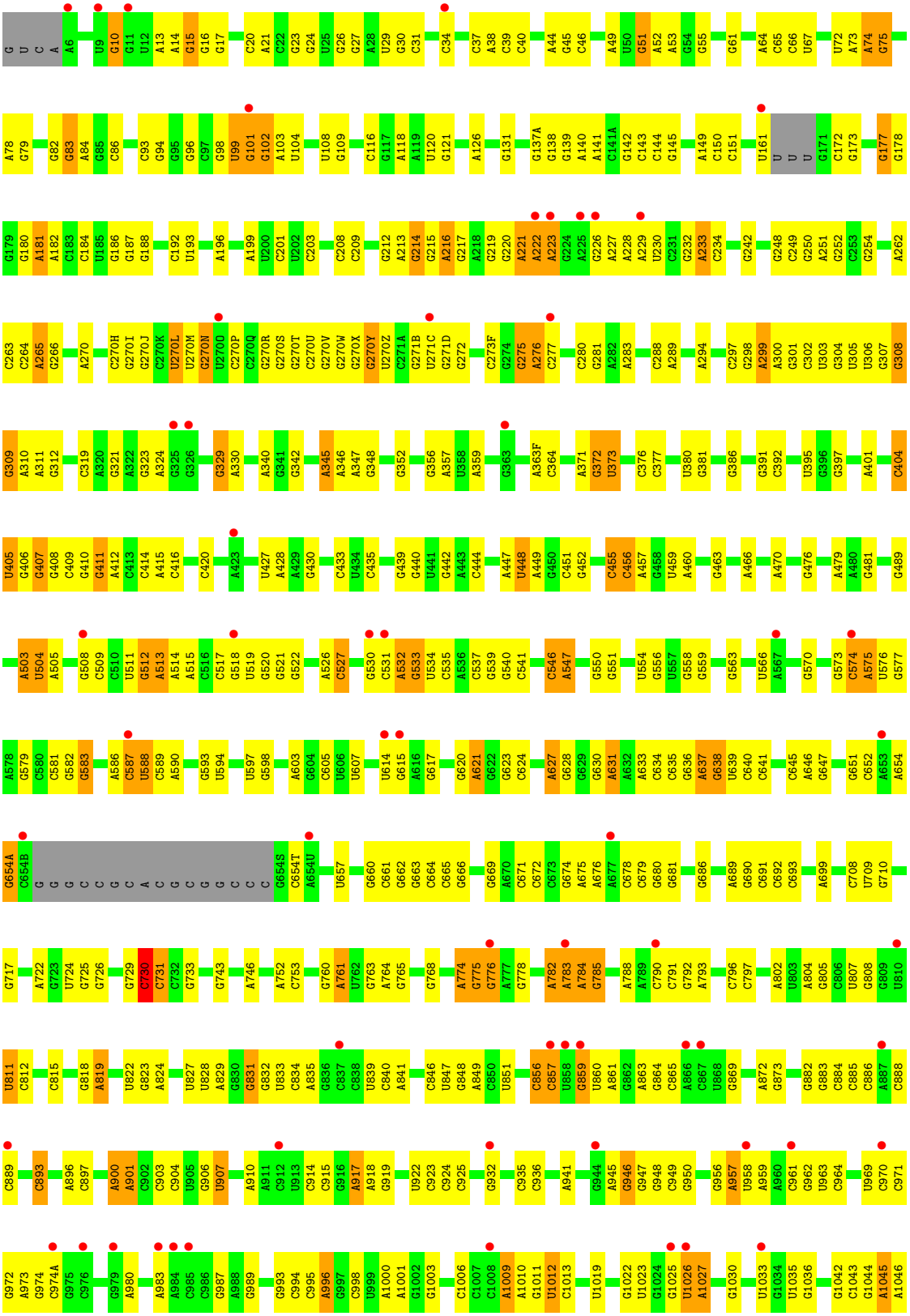
• Molecule 23: mRNA

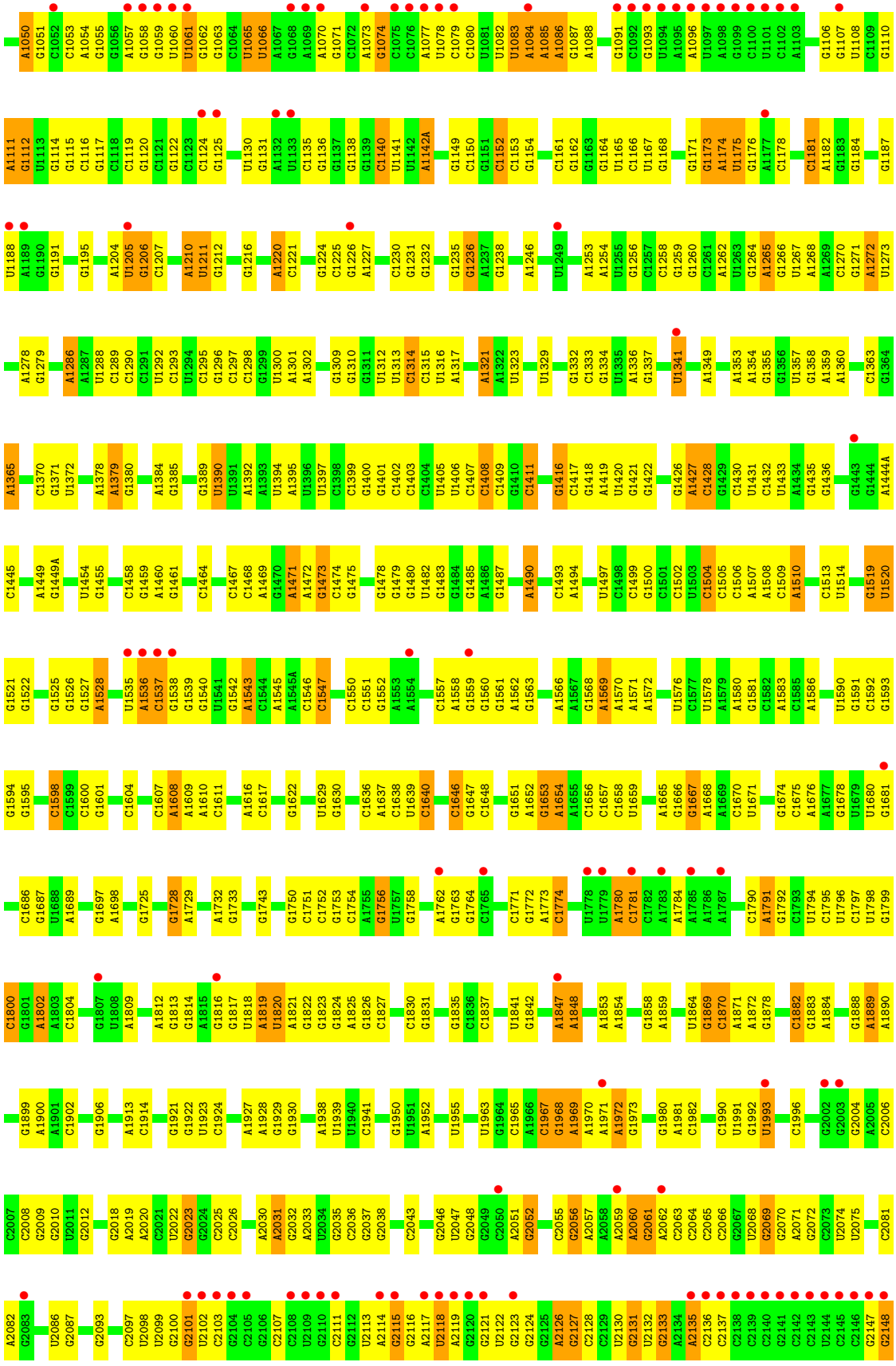


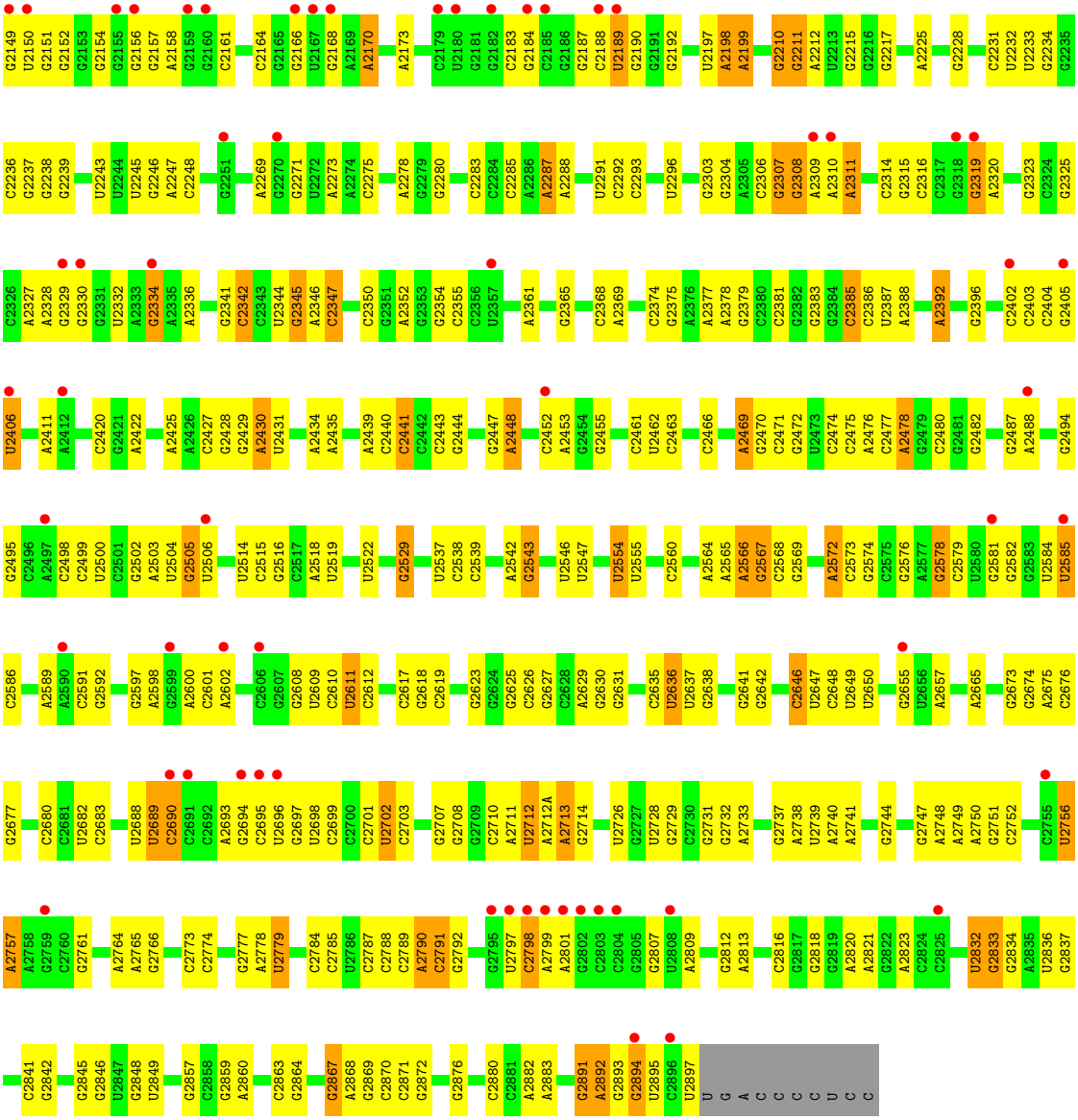


• Molecule 24: 23S rRNA

Chain RA:

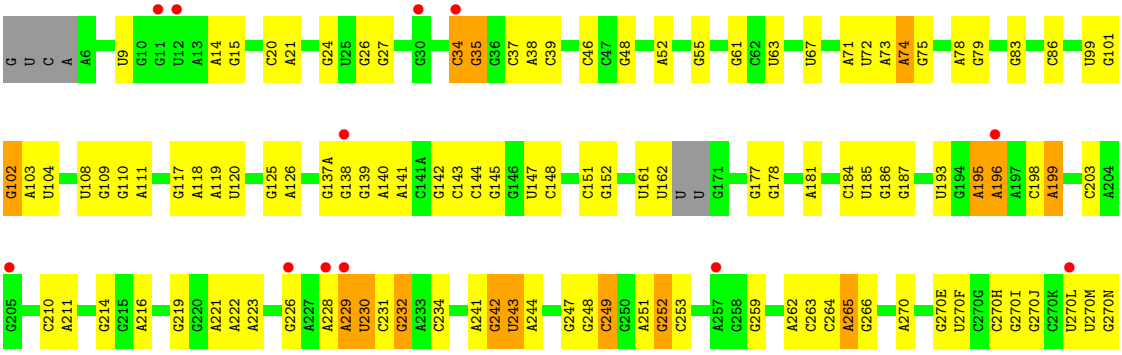


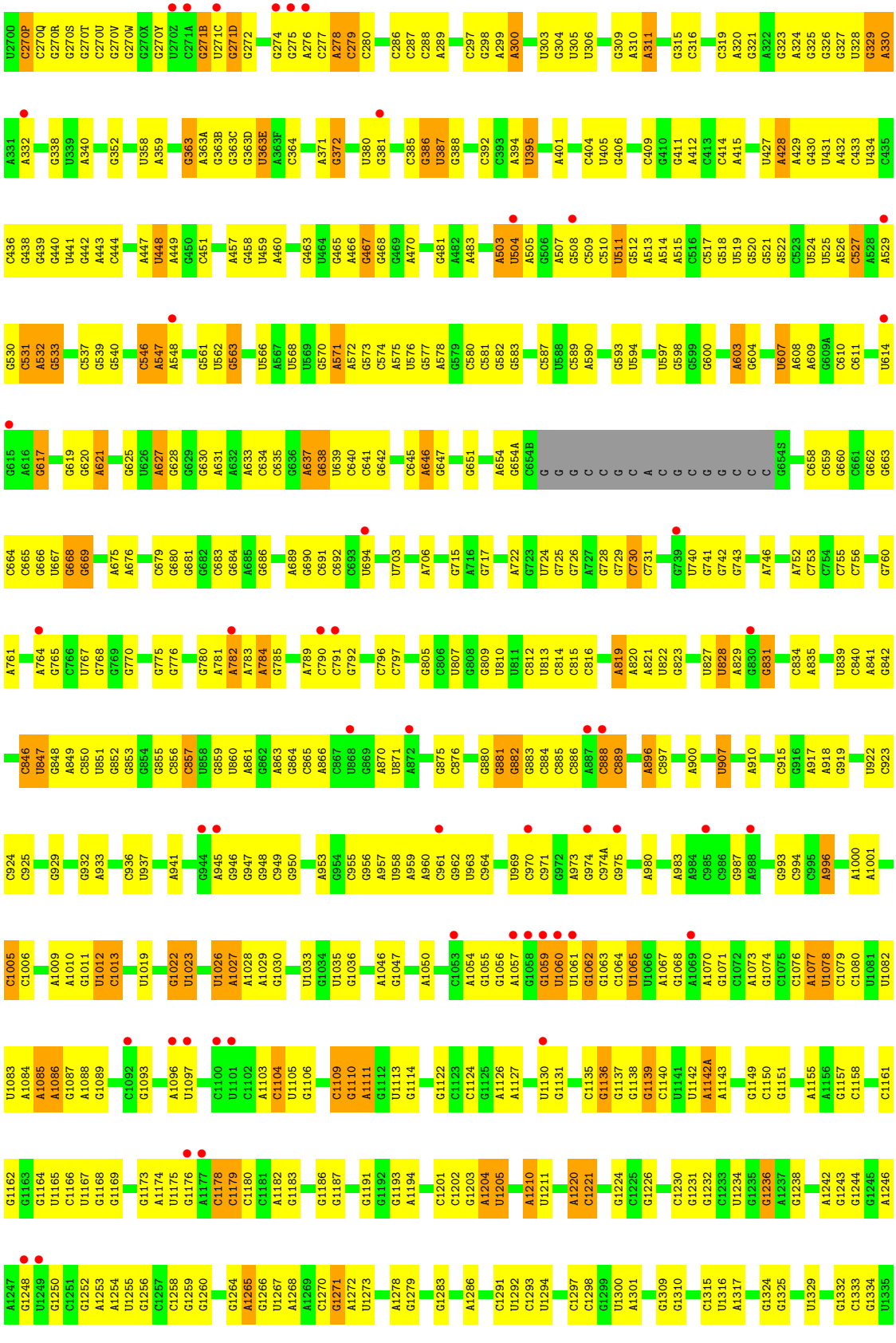


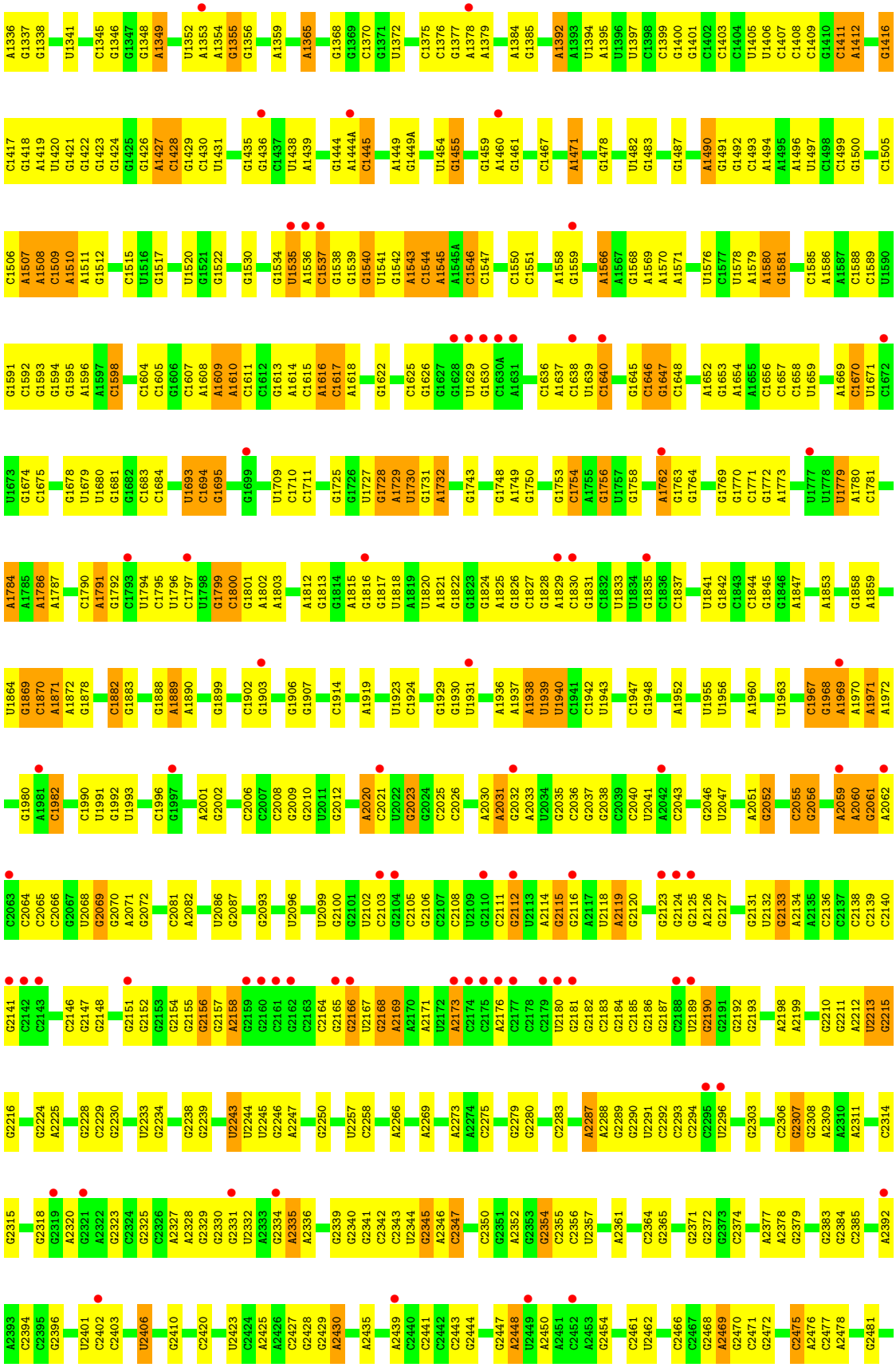


• Molecule 24: 23S rRNA

Chain YA:



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C1417 G1418 A1419 U1420 G1421 G1422 G1423 G1424 G1425 G1426 A1427 C1428 G1429 C1430 U1431 G1435 G1436 C1437 U1438 A1439 G1444 A1444A C1445 A1449 G1449A U1454 G1455 G1459 A1460 G1461 C1467 A1471 G1478 U1482 G1483 G1487 A1490 G1491 G1492 C1493 A1494 A1495 A1496 U1497 C1498 C1499 G1500 C1505
C1506 A1507 A1508 C1509 A1510 A1511 G1512 C1515 U1516 G1517 U1520 G1521 G1522 G1530 G1534 U1535 A1536 C1537 G1538 G1539 G1540 U1541 G1542 A1543 C1544 A1545 A1545A C1546 C1547 C1550 C1551 A1558 G1559 A1566 A1567 G1568 A1569 A1570 A1571 U1576 C1577 U1578 A1579 A1580 G1581 C1585 A1586 A1587 C1588 C1589 U1590
G1591 C1592 G1593 G1594 G1595 A1596 A1597 C1598 C1604 C1605 G1606 C1607 A1608 A1609 A1610 C1611 C1612 G1613 A1614 C1615 A1616 C1617 A1618 G1622 C1625 G1626 G1627 G1628 U1629 G1630 C1630A A1631 C1636 A1637 C1638 U1639 C1640 G1645 C1646 G1647 C1648 A1652 G1653 A1654 A1655 C1656 C1657 C1658 U1659 A1669 C1670 U1671 C1672
U1673 G1674 C1675 G1678 U1679 U1680 G1681 G1682 C1683 C1684 U1693 C1694 G1695 G1699 U1709 C1710 C1711 G1725 G1726 U1727 G1728 A1729 U1730 G1731 A1732 G1743 G1748 A1749 G1750 G1753 C1754 A1755 G1756 U1757 G1768 A1762 G1763 G1764 G1769 G1770 C1771 G1772 A1773 U1777 U1778 U1779 A1780 C1781
A1784 A1785 A1786 A1787 C1790 A1791 G1792 C1793 U1794 C1795 U1796 C1797 U1798 G1799 C1800 G1801 A1802 A1803 A1812 G1813 G1814 A1815 G1816 G1817 U1818 A1819 U1820 A1821 G1822 G1823 G1824 A1825 G1826 C1827 G1828 A1829 C1830 G1831 C1832 U1833 U1834 G1835 C1836 C1837 U1841 G1842 C1843 C1844 G1845 G1846 A1847 A1853 G1858 A1859
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C2063 C2064 C2065 C2066 G2067 U2068 G2069 G2070 A2071 G2072 C2081 A2082 U2086 G2087 G2093 U2096 U2099 G2100 G2101 U2102 C2103 G2104 C2105 G2106 C2107 C2108 U2109 G2110 C2111 G2112 U2113 A2114 G2115 G2116 A2117 U2118 A2119 G2120 G2123 G2124 G2125 A2126 G2127 G2131 U2132 G2133 A2134 A2135 C2136 C2137 C2138 C2139 C2140
G2141 C2142 C2143 C2146 G2147 G2148 G2151 G2152 G2153 G2154 G2155 G2156 G2157 A2158 G2159 C2160 C2161 G2162 C2163 C2164 G2165 G2166 U2167 G2168 A2169 A2170 A2171 U2172 A2173 C2174 C2175 A2176 C2177 C2178 C2179 U2180 G2181 G2182 C2183 G2184 C2185 G2186 G2187 C2188 U2189 G2190 G2191 G2192 G2193 A2198 A2199 G2210 G2211 A2212 U2213 G2215
G2216 G2224 A2225 G2228 C2229 G2230 U2233 G2234 G2238 G2239 U2243 U2244 U2245 G2246 A2247 G2250 U2257 C2258 A2266 A2269 A2273 A2274 C2275 G2279 G2280 C2283 A2287 A2288 G2289 G2290 U2291 C2292 G2293 C2294 C2295 U2296 G2303 C2306 G2307 G2308 A2309 A2310 A2311 C2314
G2315 G2318 G2319 A2320 G2321 A2322 G2323 C2324 G2325 C2326 A2327 A2328 G2329 G2330 G2331 U2332 A2333 G2334 A2335 A2336 G2339 G2340 G2341 C2342 C2343 U2344 G2345 A2346 C2347 C2350 G2351 A2352 G2353 G2354 C2355 C2356 U2357 A2361 C2364 G2365 G2371 G2372 G2373 C2374 A2377 A2378 G2379 G2383 G2384 C2385 A2392
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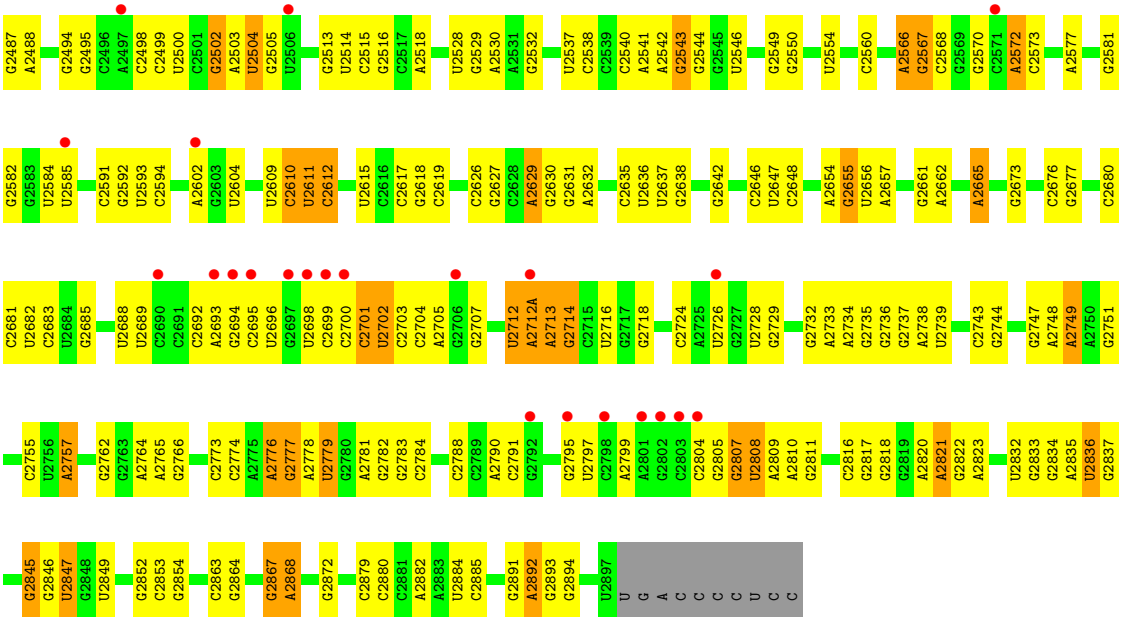
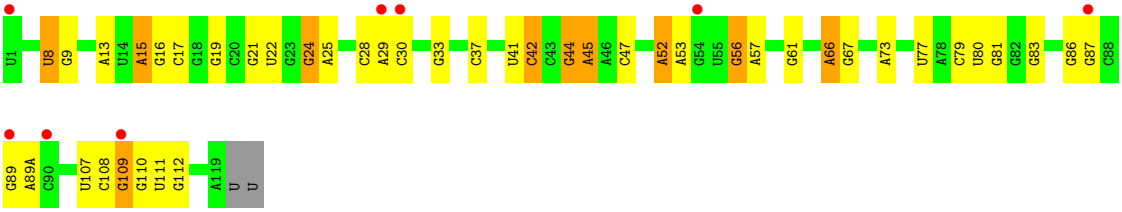


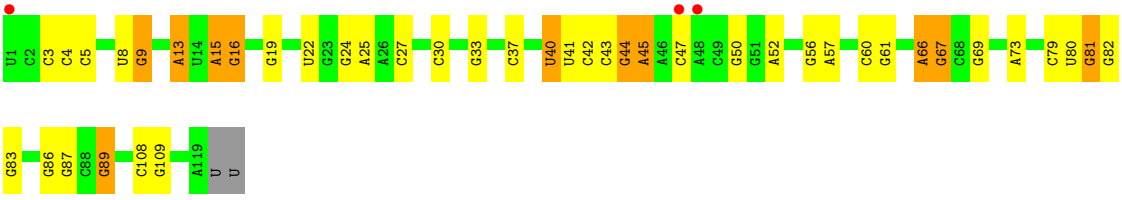
• Molecule 25: 5S rRNA

Chain RB:



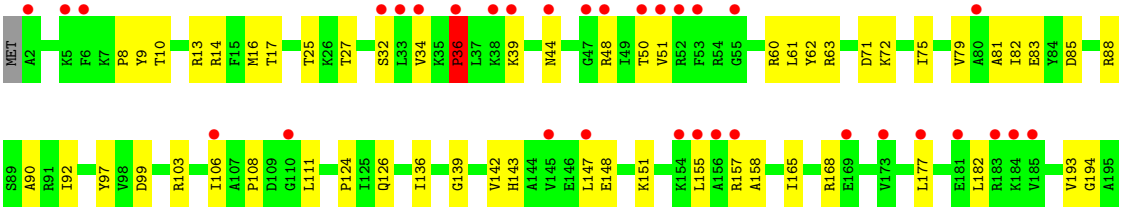
• Molecule 25: 5S rRNA

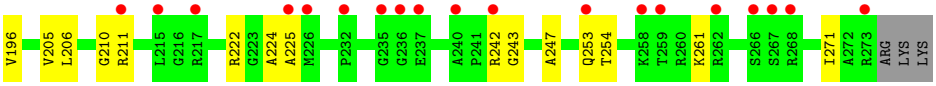
Chain YB:



• Molecule 26: 50S ribosomal protein L2

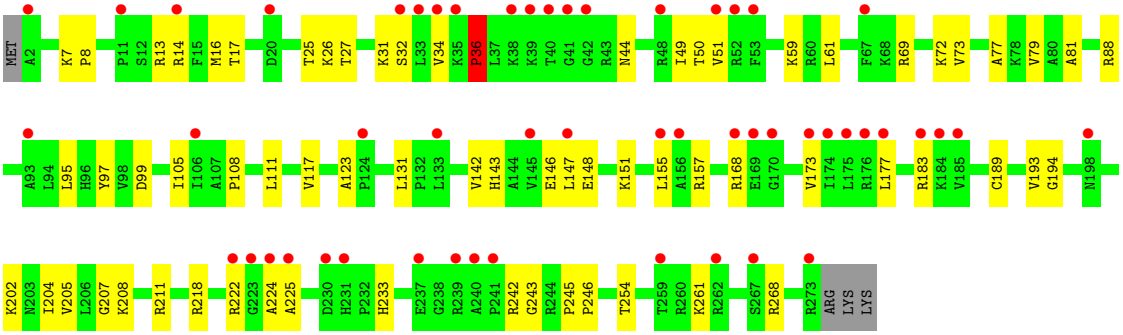
Chain RD:





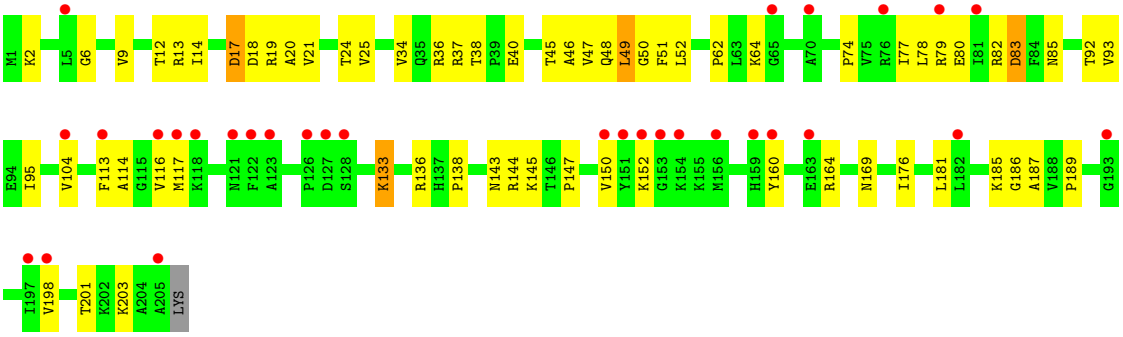
• Molecule 26: 50S ribosomal protein L2

Chain YD:



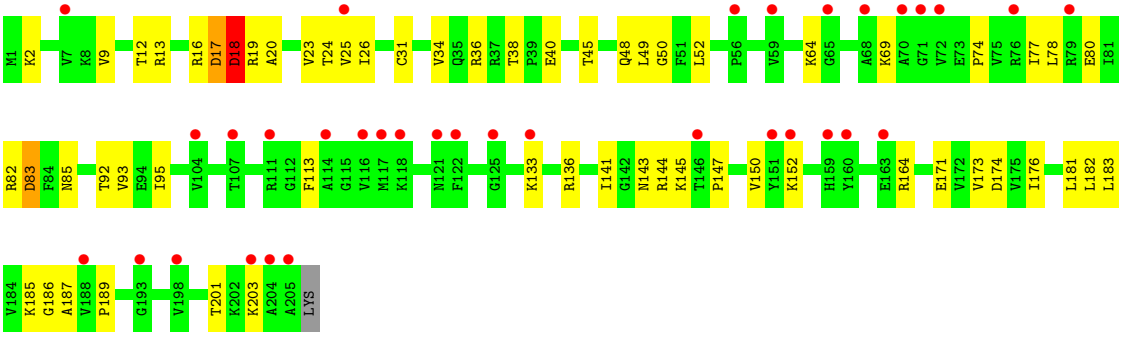
• Molecule 27: 50S ribosomal protein L3

Chain RE:



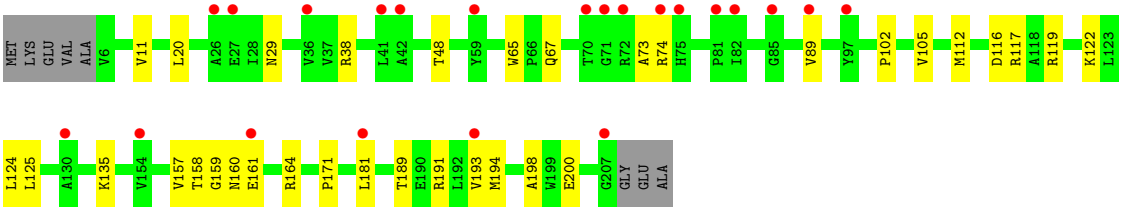
• Molecule 27: 50S ribosomal protein L3

Chain YE:



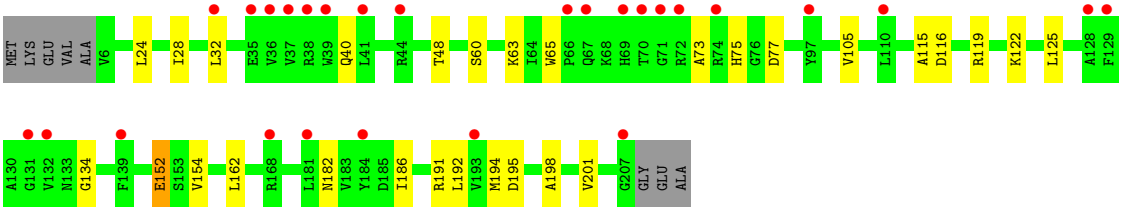
• Molecule 28: 50S ribosomal protein L4

Chain RF:



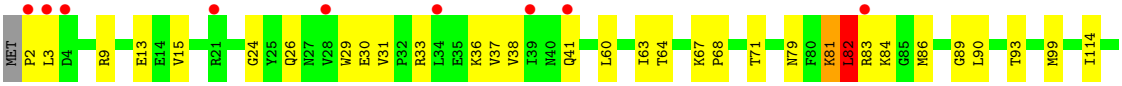
• Molecule 28: 50S ribosomal protein L4

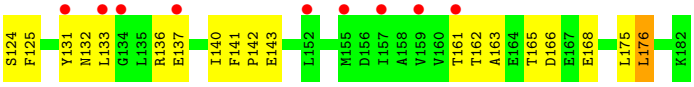
Chain YF:



• Molecule 29: 50S ribosomal protein L5

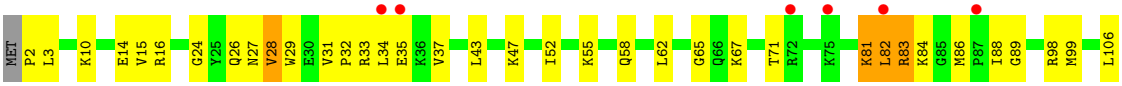
Chain RG:

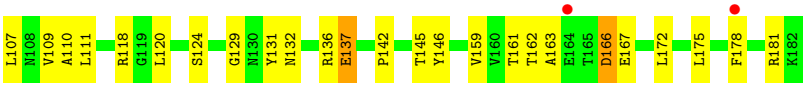




• Molecule 29: 50S ribosomal protein L5

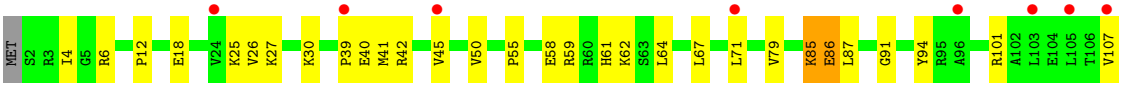
Chain YG:

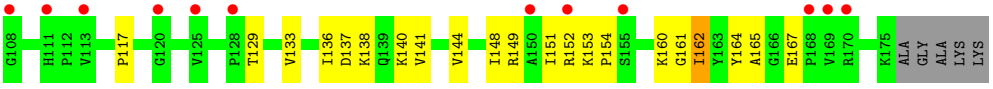




• Molecule 30: 50S ribosomal protein L6

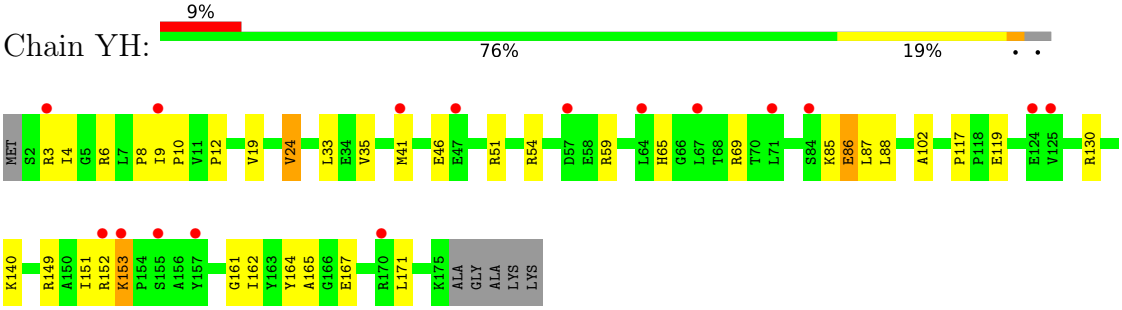
Chain RH:





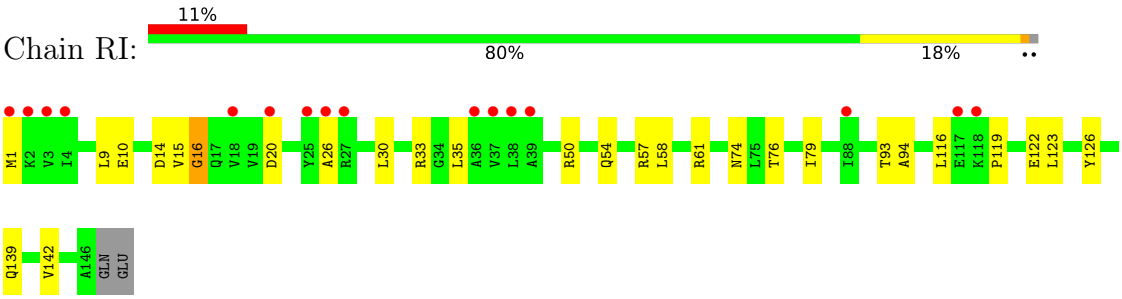
• Molecule 30: 50S ribosomal protein L6

Chain YH:



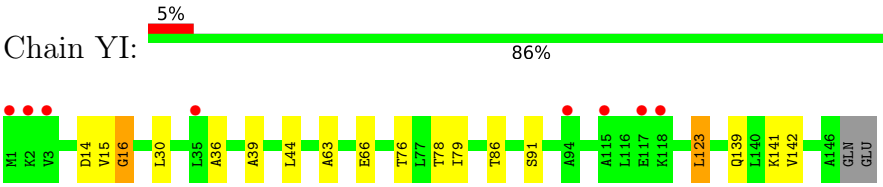
• Molecule 31: 50S ribosomal protein L9

Chain RI:



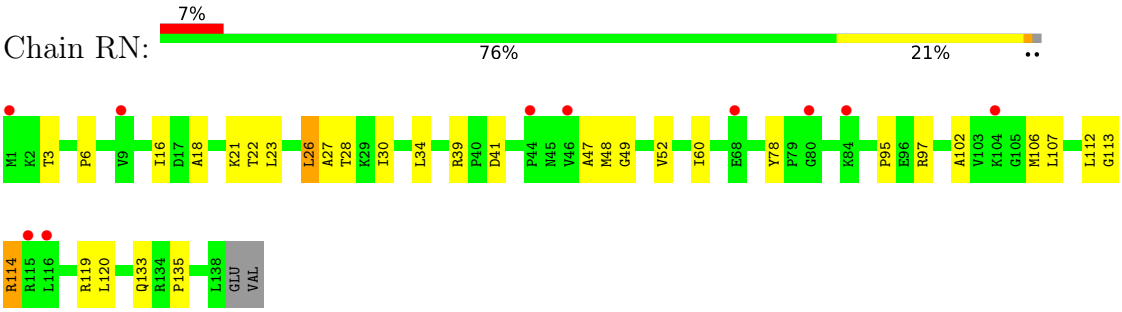
• Molecule 31: 50S ribosomal protein L9

Chain YI:



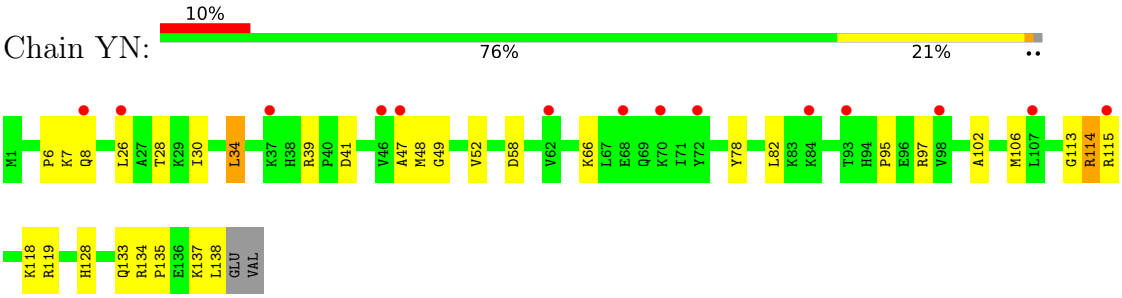
• Molecule 32: 50S ribosomal protein L13

Chain RN:



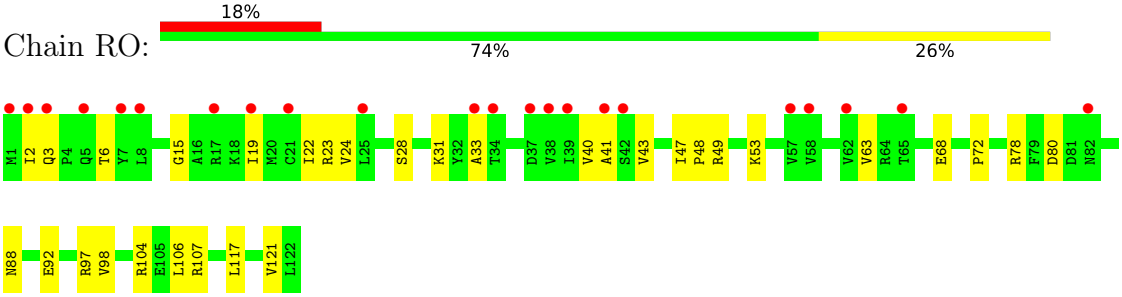
• Molecule 32: 50S ribosomal protein L13

Chain YN:



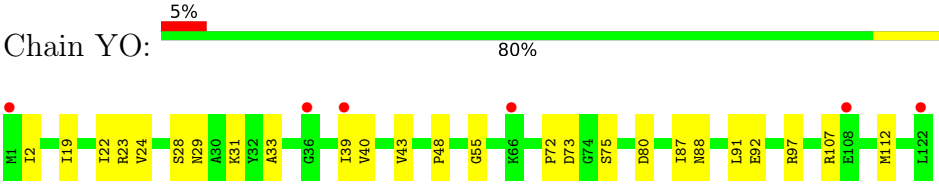
• Molecule 33: 50S ribosomal protein L14

Chain RO:



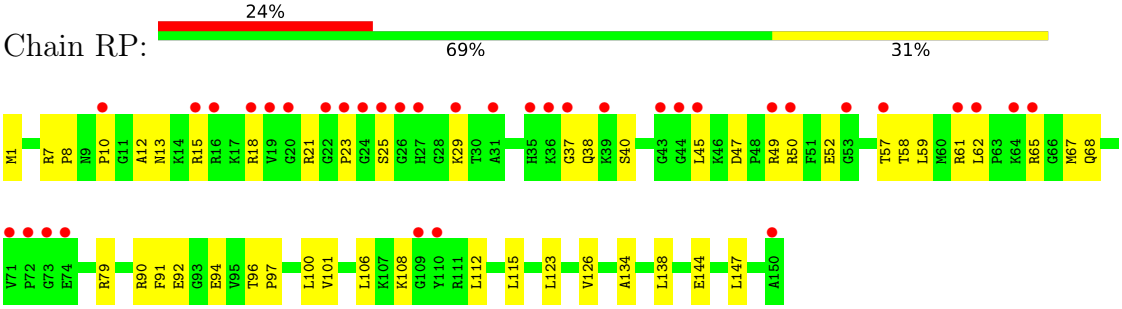
• Molecule 33: 50S ribosomal protein L14

Chain YO:



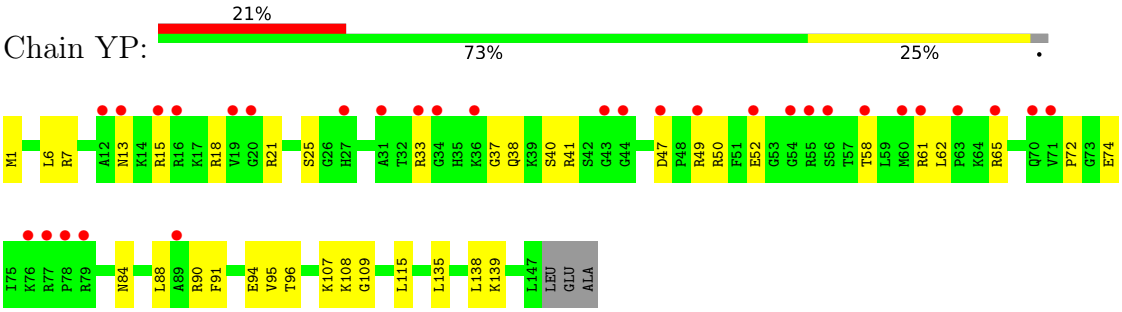
• Molecule 34: 50S ribosomal protein L15

Chain RP:



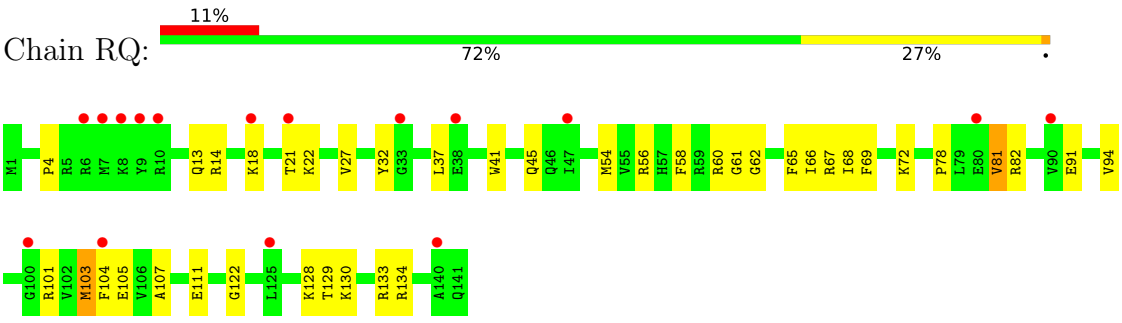
• Molecule 34: 50S ribosomal protein L15

Chain YP:



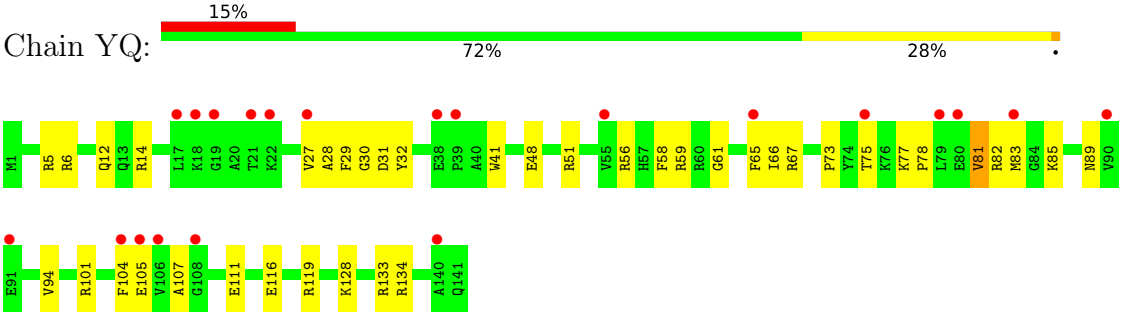
• Molecule 35: 50S ribosomal protein L16

Chain RQ:



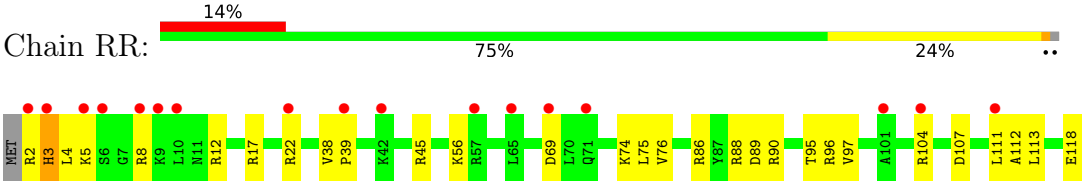
• Molecule 35: 50S ribosomal protein L16

Chain YQ:



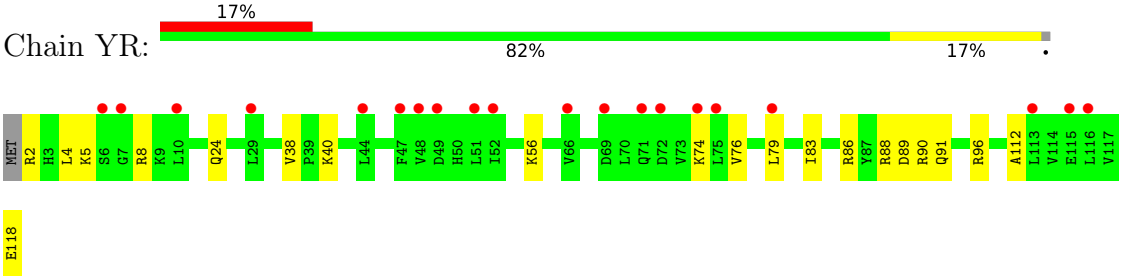
• Molecule 36: 50S ribosomal protein L17

Chain RR:



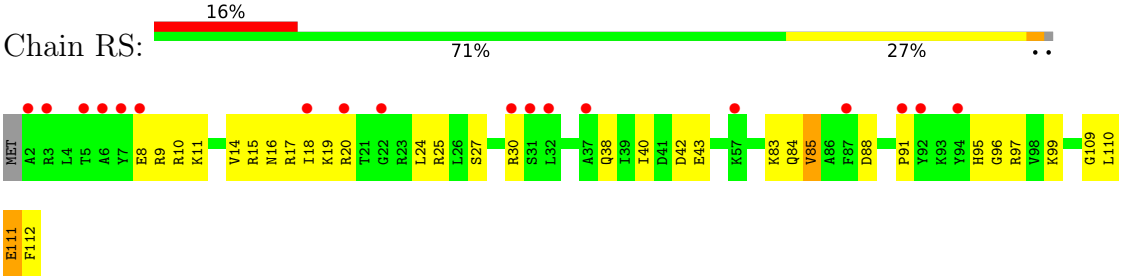
• Molecule 36: 50S ribosomal protein L17

Chain YR:



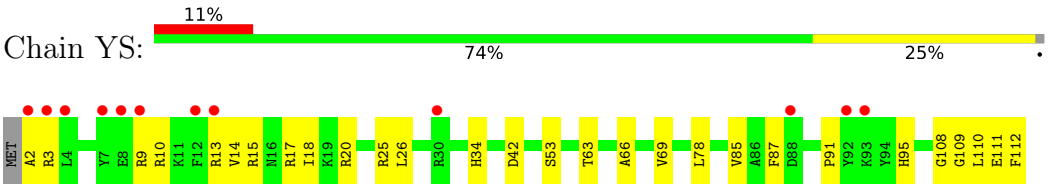
• Molecule 37: 50S ribosomal protein L18

Chain RS:



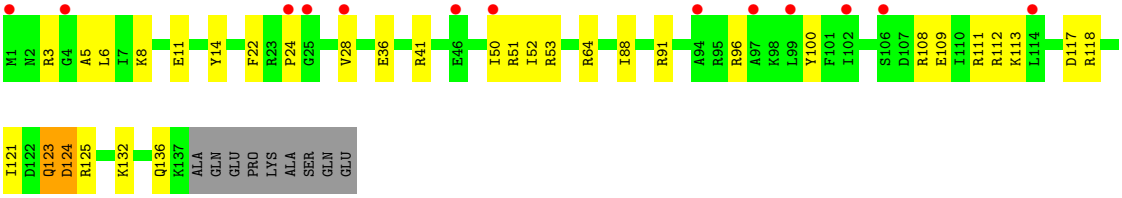
• Molecule 37: 50S ribosomal protein L18

Chain YS:

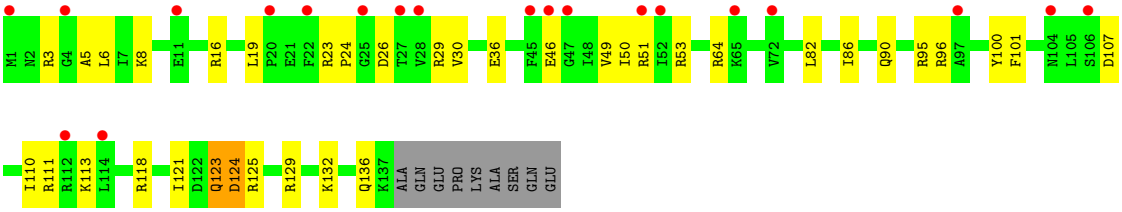


• Molecule 38: 50S ribosomal protein L19

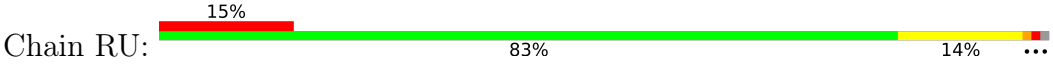
Chain RT:

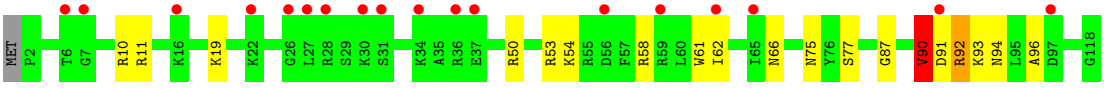


• Molecule 38: 50S ribosomal protein L19

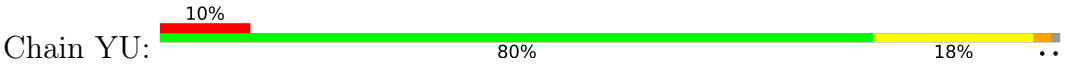


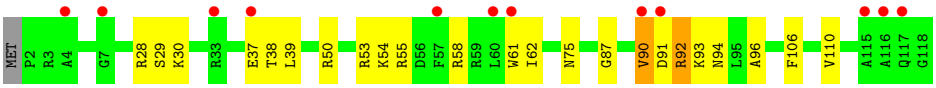
• Molecule 39: 50S ribosomal protein L20



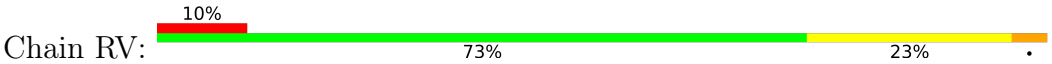


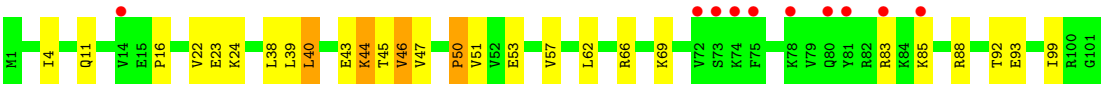
• Molecule 39: 50S ribosomal protein L20



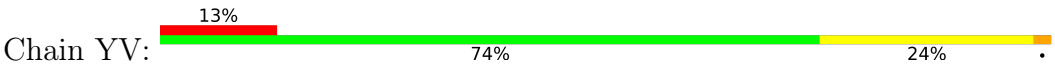


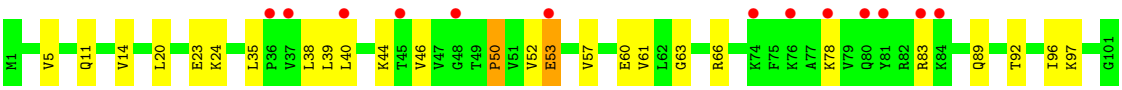
• Molecule 40: 50S ribosomal protein L21



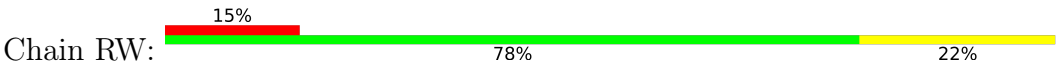


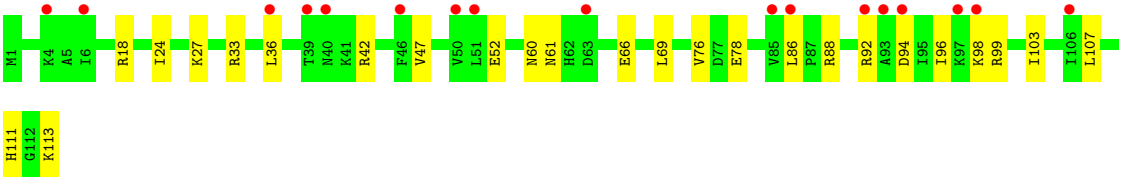
• Molecule 40: 50S ribosomal protein L21



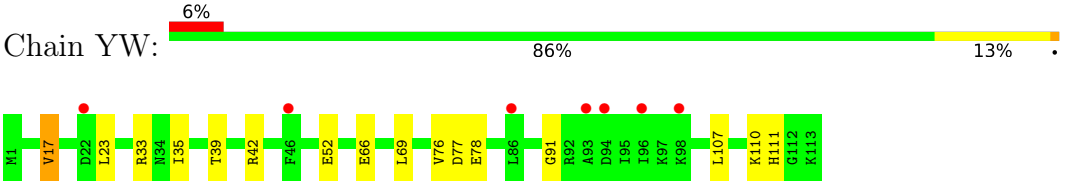


• Molecule 41: 50S ribosomal protein L22

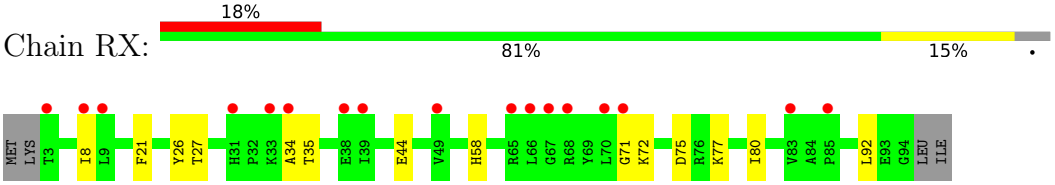




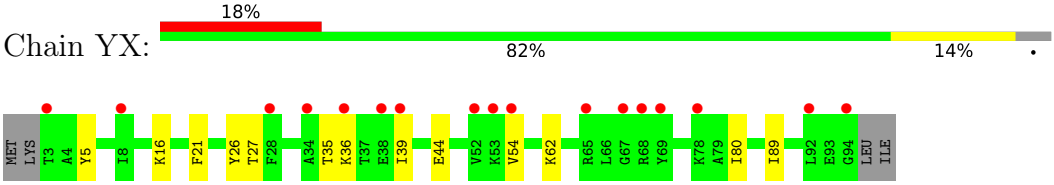
• Molecule 41: 50S ribosomal protein L22



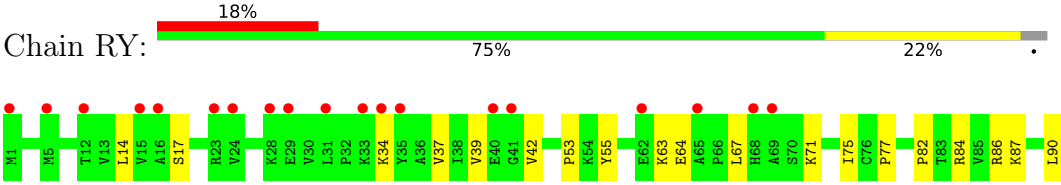
• Molecule 42: 50S ribosomal protein L23



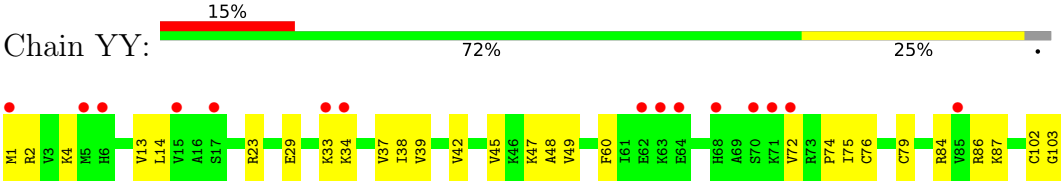
• Molecule 42: 50S ribosomal protein L23



• Molecule 43: 50S ribosomal protein L24

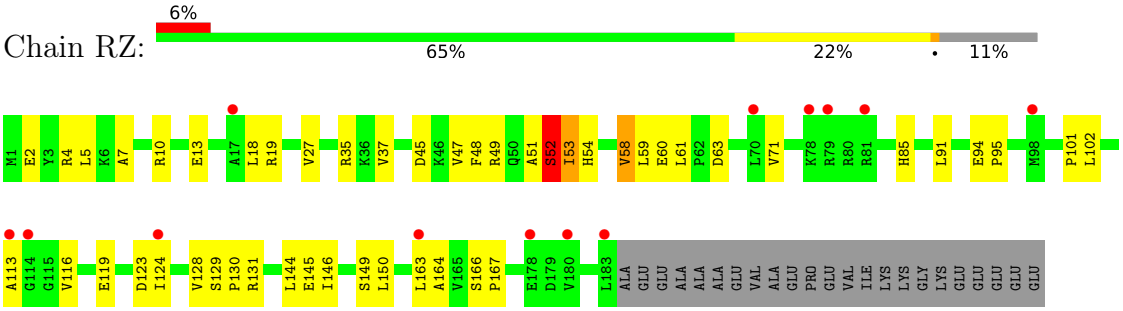


• Molecule 43: 50S ribosomal protein L24



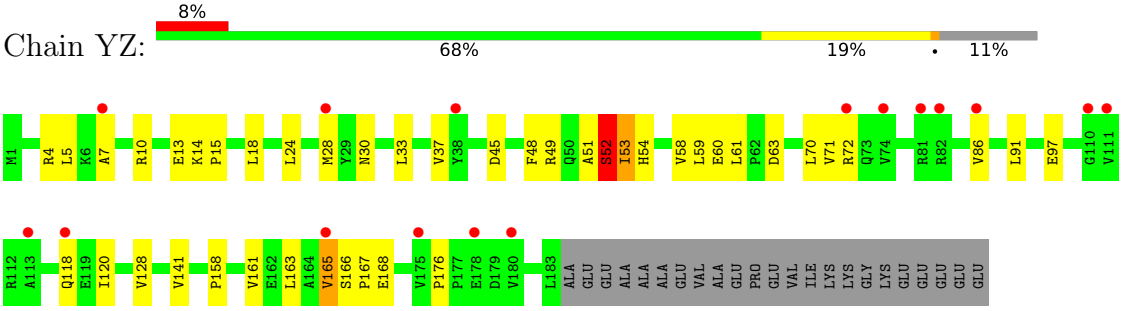
• Molecule 44: 50S ribosomal protein L25

Chain RZ:



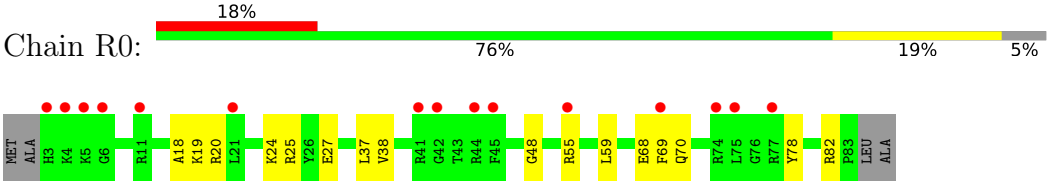
• Molecule 44: 50S ribosomal protein L25

Chain YZ:



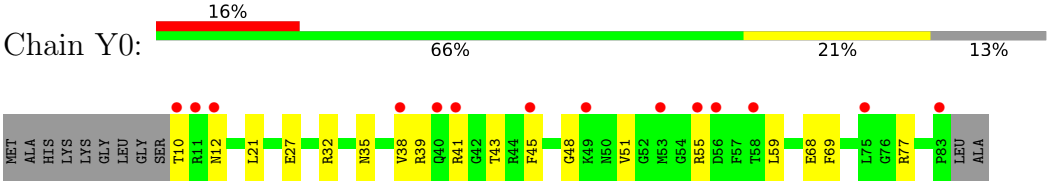
• Molecule 45: 50S ribosomal protein L27

Chain R0:



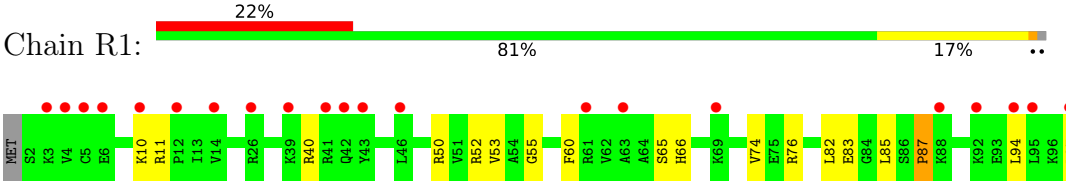
• Molecule 45: 50S ribosomal protein L27

Chain Y0:



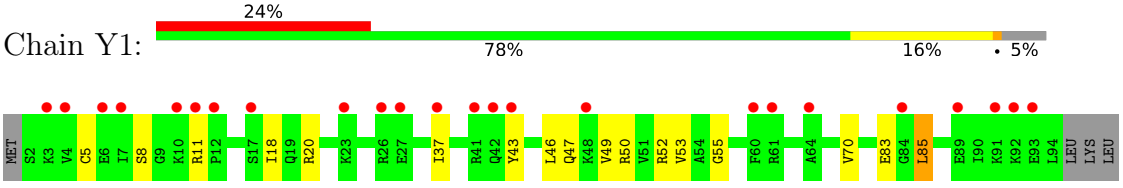
• Molecule 46: 50S ribosomal protein L28

Chain R1:



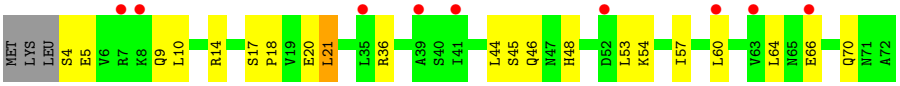
• Molecule 46: 50S ribosomal protein L28

Chain Y1:



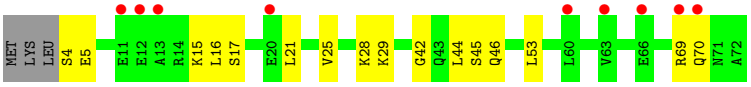
• Molecule 47: 50S ribosomal protein L29

Chain R2:



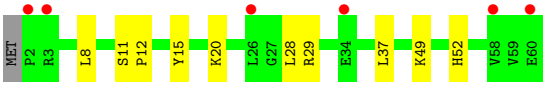
• Molecule 47: 50S ribosomal protein L29

Chain Y2:



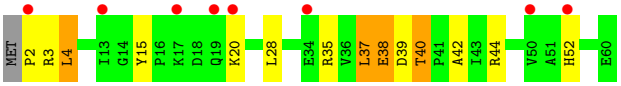
• Molecule 48: 50S ribosomal protein L30

Chain R3:



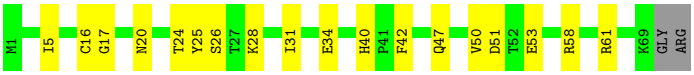
• Molecule 48: 50S ribosomal protein L30

Chain Y3:



• Molecule 49: 50S ribosomal protein L31

Chain R4:

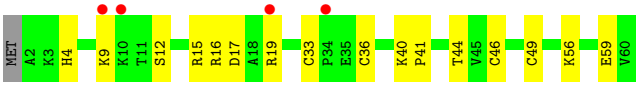


• Molecule 49: 50S ribosomal protein L31

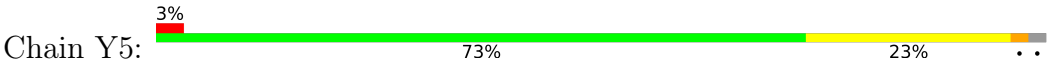
Chain Y4:

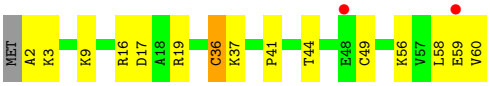
• Molecule 50: 50S ribosomal protein L32

Chain R5:

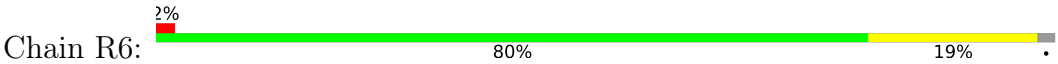


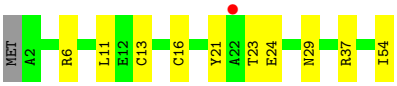
• Molecule 50: 50S ribosomal protein L32





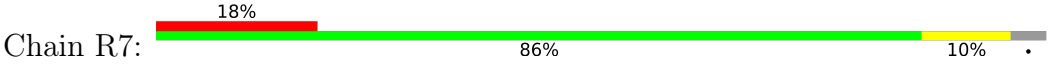
• Molecule 51: 50S ribosomal protein L33

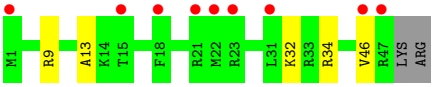




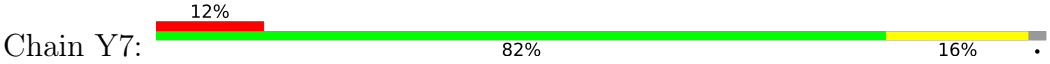
• Molecule 51: 50S ribosomal protein L33

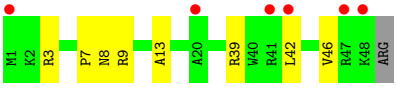
• Molecule 52: 50S ribosomal protein L34



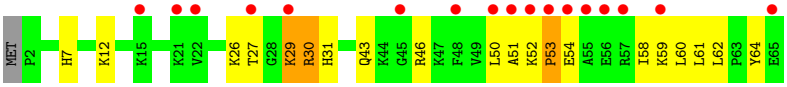


• Molecule 52: 50S ribosomal protein L34



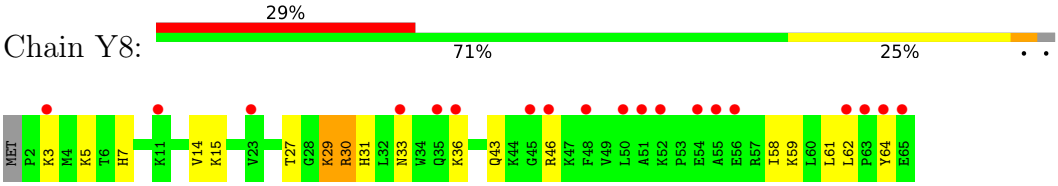


• Molecule 53: 50S ribosomal protein L35



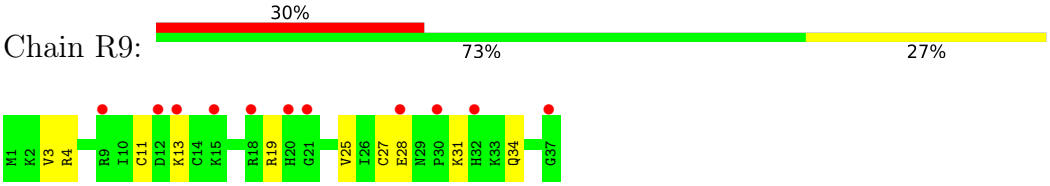
• Molecule 53: 50S ribosomal protein L35

Chain Y8:



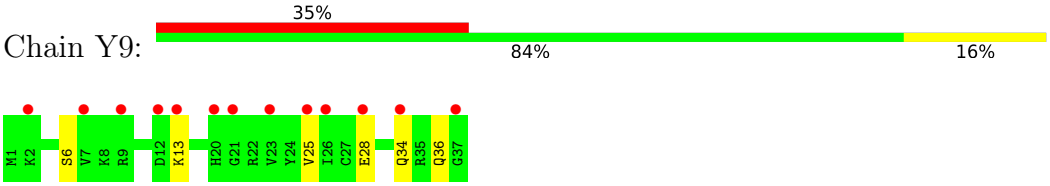
• Molecule 54: 50S ribosomal protein L36

Chain R9:



• Molecule 54: 50S ribosomal protein L36

Chain Y9:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.97Å 450.71Å 619.40Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.82 – 3.97 49.82 – 3.97	Depositor EDS
% Data completeness (in resolution range)	98.7 (49.82-3.97) 98.6 (49.82-3.97)	Depositor EDS
R_{merge}	0.33	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.36 (at 4.00Å)	Xtriage
Refinement program	PHENIX 1.14_3260	Depositor
R, R_{free}	0.228 , 0.255 0.228 , 0.254	Depositor DCC
R_{free} test set	21855 reflections (4.35%)	wwPDB-VP
Wilson B-factor (Å^2)	146.0	Xtriage
Anisotropy	0.246	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.17 , 66.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.41$, $< L^2 > = 0.24$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	291782	wwPDB-VP
Average B, all atoms (Å^2)	177.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.93% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, SF4, MG

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	QA	0.24	0/36098	0.34	0/56341
1	XA	0.24	0/36101	0.34	4/56346 (0.0%)
2	QB	0.46	0/1942	0.78	0/2619
2	XB	0.49	0/1950	0.82	2/2630 (0.1%)
3	QC	0.46	0/1629	0.80	0/2195
3	XC	0.46	0/1629	0.83	0/2195
4	QD	0.43	1/1733 (0.1%)	0.73	0/2318
4	XD	0.49	1/1733 (0.1%)	0.74	0/2318
5	QE	0.43	0/1171	0.74	0/1576
5	XE	0.45	0/1171	0.81	0/1576
6	QF	0.48	0/856	0.77	2/1154 (0.2%)
6	XF	0.41	0/856	0.73	0/1154
7	QG	0.48	0/1276	0.72	0/1709
7	XG	0.48	0/1276	0.81	1/1709 (0.1%)
8	QH	0.41	0/1128	0.66	1/1517 (0.1%)
8	XH	0.38	0/1128	0.66	0/1517
9	QI	0.48	0/1008	0.83	1/1354 (0.1%)
9	XI	0.46	0/1017	0.87	1/1365 (0.1%)
10	QJ	0.43	0/814	0.73	0/1095
10	XJ	0.43	0/790	0.74	0/1063
11	QK	0.35	0/900	0.55	0/1213
11	XK	0.42	0/879	0.70	0/1187
12	QL	0.43	0/991	0.79	0/1327
12	XL	0.39	0/972	0.78	0/1301
13	QM	0.50	0/965	0.85	0/1292
13	XM	0.51	0/956	1.00	2/1281 (0.2%)
14	QN	0.42	0/501	0.70	0/664
14	XN	0.51	0/501	0.81	0/664
15	QO	0.38	0/745	0.60	0/992
15	XO	0.43	0/740	0.71	0/987
16	QP	0.41	0/721	0.64	0/970
16	XP	0.43	0/721	0.75	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
17	QQ	0.32	0/847	0.59	0/1131
17	XQ	0.36	0/847	0.65	0/1131
18	QR	0.36	0/579	0.59	0/768
18	XR	0.41	0/579	0.66	0/768
19	QS	0.39	0/680	0.83	1/915 (0.1%)
19	XS	0.46	0/689	0.86	0/926
20	QT	0.38	0/765	0.63	0/1007
20	XT	0.58	0/765	0.87	0/1007
21	QU	0.39	0/221	0.68	0/288
21	XU	0.37	0/221	0.64	0/288
22	QV	0.20	0/1840	0.35	0/2866
22	XV	0.18	0/1840	0.33	0/2866
23	QX	0.19	0/470	0.48	1/733 (0.1%)
23	XX	0.17	0/470	0.32	0/733
24	RA	0.30	0/69521	0.37	5/108529 (0.0%)
24	YA	0.35	0/69543	0.38	2/108563 (0.0%)
25	RB	0.22	0/2878	0.32	0/4490
25	YB	0.30	0/2878	0.34	0/4490
26	RD	0.46	0/2165	0.75	6/2919 (0.2%)
26	YD	0.48	0/2165	0.74	5/2919 (0.2%)
27	RE	0.42	0/1601	0.85	2/2160 (0.1%)
27	YE	0.45	0/1601	0.79	1/2160 (0.0%)
28	RF	0.45	0/1620	0.72	0/2194
28	YF	0.51	0/1620	0.77	1/2194 (0.0%)
29	RG	0.45	0/1499	0.85	0/2016
29	YG	0.51	0/1499	0.88	3/2016 (0.1%)
30	RH	0.44	0/1362	0.89	2/1841 (0.1%)
30	YH	0.49	0/1362	0.88	5/1841 (0.3%)
31	RI	0.44	0/1151	0.89	0/1558
31	YI	0.48	0/1151	0.87	0/1558
32	RN	0.41	0/1131	0.75	3/1525 (0.2%)
32	YN	0.49	0/1131	0.82	3/1525 (0.2%)
33	RO	0.46	0/943	0.70	0/1269
33	YO	0.48	0/943	0.68	0/1269
34	RP	0.47	0/1162	0.86	0/1544
34	YP	0.46	0/1139	0.82	0/1514
35	RQ	0.42	0/1143	0.81	2/1527 (0.1%)
35	YQ	0.47	0/1143	0.87	2/1527 (0.1%)
36	RR	0.47	0/974	0.74	0/1302
36	YR	0.48	0/974	0.76	0/1302
37	RS	0.43	0/892	0.86	0/1187
37	YS	0.43	0/892	0.84	0/1187
38	RT	0.45	0/1155	0.82	0/1542

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	YT	0.49	0/1155	0.81	0/1542
39	RU	0.47	0/982	0.77	2/1306 (0.2%)
39	YU	0.55	0/982	0.79	0/1306
40	RV	0.44	0/790	0.80	1/1057 (0.1%)
40	YV	0.48	1/790 (0.1%)	0.78	0/1057
41	RW	0.51	0/911	0.78	0/1220
41	YW	0.49	0/911	0.74	0/1220
42	RX	0.37	0/739	0.66	0/993
42	YX	0.45	0/739	0.74	0/993
43	RY	0.37	0/831	0.62	0/1108
43	YY	0.38	0/831	0.63	0/1108
44	RZ	0.48	0/1493	0.93	4/2026 (0.2%)
44	YZ	0.44	0/1493	0.86	1/2026 (0.0%)
45	R0	0.35	0/652	0.56	0/867
45	Y0	0.39	0/601	0.58	0/801
46	R1	0.43	0/770	0.73	0/1022
46	Y1	0.47	0/736	0.83	2/978 (0.2%)
47	R2	0.52	0/583	0.79	0/771
47	Y2	0.49	0/583	0.81	0/771
48	R3	0.49	0/474	0.77	0/635
48	Y3	0.52	0/474	0.80	0/635
49	R4	0.39	0/578	0.91	0/776
49	Y4	0.50	0/578	0.92	0/776
50	R5	0.45	0/473	0.61	0/639
50	Y5	0.54	0/473	0.78	1/639 (0.2%)
51	R6	0.35	0/460	0.67	0/613
51	Y6	0.41	0/460	0.71	0/613
52	R7	0.47	0/417	0.73	0/550
52	Y7	0.51	0/426	0.78	0/561
53	R8	0.53	0/525	0.94	2/691 (0.3%)
53	Y8	0.59	0/525	0.91	0/691
54	R9	0.37	0/310	0.65	0/407
54	Y9	0.40	0/310	0.62	0/407
All	All	0.35	3/316004 (0.0%)	0.51	71/472499 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
4	QD	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
12	XL	0	1
27	YE	0	1
29	RG	0	1
29	YG	0	1
44	RZ	0	1
44	YZ	0	1
All	All	0	7

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	XD	61	LYS	CE-NZ	9.21	1.76	1.49
4	QD	13	ARG	CZ-NH1	7.05	1.42	1.32
40	YV	53	GLU	CA-CB	5.02	1.60	1.53

All (71) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	YA	846	C	C2'-C3'-O3'	9.47	123.71	109.50
13	XM	66	LEU	CA-C-N	9.03	135.54	121.19
13	XM	66	LEU	C-N-CA	9.03	135.54	121.19
23	QX	21	G	C2'-C3'-O3'	8.53	126.49	113.70
50	Y5	60	VAL	CA-C-O	-8.47	95.59	121.00
24	RA	1774	C	C2-N1-C1'	7.17	140.31	118.80
1	XA	115	G	C2'-C3'-O3'	6.82	119.73	109.50
26	YD	32	SER	CA-C-N	6.71	134.37	121.54
26	YD	32	SER	C-N-CA	6.71	134.37	121.54
19	QS	8	GLY	N-CA-C	6.52	126.50	111.04
9	QI	111	ARG	CG-CD-NE	-6.44	97.82	112.00
26	RD	32	SER	CA-C-N	6.40	133.77	121.54
26	RD	32	SER	C-N-CA	6.40	133.77	121.54
46	Y1	85	LEU	CA-C-N	6.31	127.57	120.06
46	Y1	85	LEU	C-N-CA	6.31	127.57	120.06
24	RA	2712	U	C3'-C2'-O2'	6.22	123.93	114.60
24	RA	1774	C	C6-N1-C1'	-6.18	102.27	120.80
1	XA	358	U	N1-C1'-C2'	-6.14	102.79	112.00
24	RA	2608	G	C1'-C2'-O2'	-6.07	99.30	108.40
30	RH	85	LYS	CA-C-N	5.98	132.97	121.54
30	RH	85	LYS	C-N-CA	5.98	132.97	121.54
30	YH	85	LYS	CA-C-N	5.90	132.81	121.54
30	YH	85	LYS	C-N-CA	5.90	132.81	121.54
8	QH	19	VAL	N-CA-C	-5.85	107.59	113.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	YZ	63	ASP	N-CA-C	-5.77	106.19	113.23
40	RV	46	VAL	CB-CA-C	5.77	117.06	111.23
1	XA	115	G	C4'-C3'-O3'	5.75	118.03	109.40
27	RE	17	ASP	CA-C-N	5.73	132.48	121.54
27	RE	17	ASP	C-N-CA	5.73	132.48	121.54
26	YD	34	VAL	CA-C-N	5.71	135.74	121.80
26	YD	34	VAL	C-N-CA	5.71	135.74	121.80
26	YD	36	PRO	N-CA-C	5.67	124.15	112.47
24	RA	730	C	C2'-C3'-O3'	5.67	122.20	113.70
32	YN	114	ARG	N-CA-C	-5.65	102.92	110.55
32	RN	113	GLY	CA-C-N	-5.65	109.36	121.45
32	RN	113	GLY	C-N-CA	-5.65	109.36	121.45
35	YQ	89	ASN	CA-C-N	5.64	128.48	120.53
35	YQ	89	ASN	C-N-CA	5.64	128.48	120.53
32	RN	114	ARG	N-CA-C	-5.62	103.29	110.53
27	YE	18	ASP	N-CA-C	5.51	122.54	110.80
26	RD	34	VAL	CA-C-N	5.50	135.21	121.80
26	RD	34	VAL	C-N-CA	5.50	135.21	121.80
9	XI	2	GLU	N-CA-C	-5.48	95.66	111.00
1	XA	359	U	C2-N1-C1'	5.45	134.05	117.70
29	YG	166	ASP	CA-C-N	-5.39	112.11	120.31
29	YG	166	ASP	C-N-CA	-5.39	112.11	120.31
7	XG	87	VAL	N-CA-C	5.39	113.21	107.76
44	RZ	2	GLU	N-CA-C	5.30	117.38	109.59
28	YF	152	GLU	N-CA-C	5.26	117.97	109.40
30	YH	33	LEU	CA-C-N	5.25	129.39	122.30
30	YH	33	LEU	C-N-CA	5.25	129.39	122.30
2	XB	143	GLU	CA-C-N	-5.23	112.36	120.31
2	XB	143	GLU	C-N-CA	-5.23	112.36	120.31
29	YG	137	GLU	N-CA-C	5.22	117.65	110.35
32	YN	113	GLY	CA-C-N	-5.16	110.49	121.32
32	YN	113	GLY	C-N-CA	-5.16	110.49	121.32
53	R8	53	PRO	CA-C-N	5.13	127.47	120.54
53	R8	53	PRO	C-N-CA	5.13	127.47	120.54
6	QF	73	ASN	CA-C-N	5.08	127.09	120.28
6	QF	73	ASN	C-N-CA	5.08	127.09	120.28
26	RD	36	PRO	N-CA-C	5.08	122.94	112.47
26	RD	36	PRO	CA-N-CD	-5.05	104.92	112.00
39	RU	90	VAL	CA-C-N	5.05	131.18	121.54
39	RU	90	VAL	C-N-CA	5.05	131.18	121.54
35	RQ	103	MET	CA-C-N	5.05	131.18	121.54
35	RQ	103	MET	C-N-CA	5.05	131.18	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	YA	271(B)	G	P-O3'-C3'	5.05	125.75	119.70
30	YH	153	LYS	N-CA-C	5.04	120.46	113.45
44	RZ	63	ASP	N-CA-C	-5.01	107.12	113.23
44	RZ	164	ALA	CA-C-N	-5.00	112.97	121.97
44	RZ	164	ALA	C-N-CA	-5.00	112.97	121.97

There are no chirality outliers.

All (7) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
4	QD	33	MET	Peptide
29	RG	82	LEU	Peptide
44	RZ	52	SER	Peptide
12	XL	104	VAL	Peptide
27	YE	17	ASP	Peptide
29	YG	82	LEU	Peptide
44	YZ	52	SER	Peptide

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	QA	32247	0	16276	509	0
1	XA	32249	0	16279	515	1
2	QB	1907	0	1958	29	0
2	XB	1915	0	1969	35	0
3	QC	1605	0	1668	40	0
3	XC	1605	0	1668	28	1
4	QD	1703	0	1763	38	0
4	XD	1703	0	1763	53	1
5	QE	1155	0	1213	22	0
5	XE	1155	0	1213	26	0
6	QF	843	0	857	17	0
6	XF	843	0	857	9	0
7	QG	1257	0	1296	28	0
7	XG	1257	0	1296	24	0
8	QH	1108	0	1165	30	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	XH	1108	0	1165	30	0
9	QI	989	0	1011	29	0
9	XI	998	0	1024	25	0
10	QJ	801	0	849	26	0
10	XJ	777	0	816	27	0
11	QK	885	0	904	23	1
11	XK	864	0	881	17	0
12	QL	975	0	1062	30	0
12	XL	956	0	1046	17	0
13	QM	955	0	1021	40	0
13	XM	946	0	1008	20	0
14	QN	492	0	528	16	0
14	XN	492	0	531	37	0
15	QO	734	0	771	14	0
15	XO	729	0	768	12	0
16	QP	705	0	725	10	0
16	XP	705	0	725	9	0
17	QQ	834	0	904	11	0
17	XQ	834	0	904	18	0
18	QR	574	0	644	14	0
18	XR	574	0	644	12	0
19	QS	665	0	686	20	0
19	XS	674	0	699	16	0
20	QT	763	0	861	17	0
20	XT	763	0	861	21	0
21	QU	217	0	234	6	0
21	XU	217	0	234	8	0
22	QV	1647	0	832	20	0
22	XV	1647	0	832	19	0
23	QX	418	0	209	10	0
23	XX	418	0	209	9	0
24	RA	62071	0	31291	835	4
24	YA	62091	0	31297	822	0
25	RB	2573	0	1306	27	0
25	YB	2573	0	1306	26	0
26	RD	2115	0	2195	51	0
26	YD	2115	0	2195	52	0
27	RE	1568	0	1634	53	0
27	YE	1568	0	1634	41	0
28	RF	1585	0	1632	27	0
28	YF	1585	0	1632	22	0
29	RG	1474	0	1535	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	YG	1474	0	1535	45	0
30	RH	1336	0	1418	35	0
30	YH	1336	0	1418	22	1
31	RI	1136	0	1223	17	0
31	YI	1136	0	1223	11	0
32	RN	1104	0	1180	27	0
32	YN	1104	0	1180	24	0
33	RO	933	0	996	23	0
33	YO	933	0	996	18	0
34	RP	1145	0	1228	37	0
34	YP	1122	0	1206	31	0
35	RQ	1122	0	1179	30	0
35	YQ	1122	0	1179	30	0
36	RR	960	0	1021	20	0
36	YR	960	0	1021	12	0
37	RS	882	0	942	21	0
37	YS	882	0	943	20	0
38	RT	1141	0	1202	26	0
38	YT	1141	0	1202	25	0
39	RU	964	0	1022	22	0
39	YU	964	0	1022	26	0
40	RV	779	0	852	18	0
40	YV	779	0	852	15	1
41	RW	900	0	964	17	0
41	YW	900	0	964	9	0
42	RX	725	0	778	11	0
42	YX	725	0	778	10	0
43	RY	818	0	909	16	0
43	YY	818	0	909	18	1
44	RZ	1461	0	1493	32	0
44	YZ	1461	0	1493	25	0
45	R0	643	0	667	12	0
45	Y0	593	0	612	15	0
46	R1	763	0	848	13	0
46	Y1	729	0	802	11	0
47	R2	581	0	629	12	0
47	Y2	581	0	629	10	2
48	R3	469	0	518	7	0
48	Y3	469	0	518	10	0
49	R4	565	0	557	13	0
49	Y4	565	0	557	22	0
50	R5	459	0	476	14	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
50	Y5	459	0	477	13	1
51	R6	453	0	473	9	0
51	Y6	453	0	473	11	0
52	R7	409	0	454	4	0
52	Y7	418	0	467	7	0
53	R8	517	0	582	18	0
53	Y8	517	0	582	19	0
54	R9	307	0	335	8	0
54	Y9	307	0	335	5	0
55	QA	69	0	0	0	0
55	QE	1	0	0	0	0
55	QH	1	0	0	0	0
55	QV	1	0	0	0	0
55	R1	1	0	0	0	0
55	RA	381	0	0	0	0
55	RB	9	0	0	0	0
55	RD	1	0	0	0	0
55	RE	1	0	0	0	0
55	RQ	1	0	0	0	0
55	XA	67	0	0	0	0
55	XE	1	0	0	0	0
55	Y0	1	0	0	0	0
55	Y5	1	0	0	0	0
55	Y7	2	0	0	0	0
55	YA	454	0	0	0	0
55	YB	8	0	0	0	0
55	YD	2	0	0	0	0
55	YE	1	0	0	0	0
55	YP	1	0	0	0	0
55	YQ	2	0	0	0	0
55	YR	2	0	0	0	0
56	QD	8	0	0	1	0
56	XD	8	0	0	3	0
57	QN	1	0	0	0	0
57	R4	1	0	0	0	0
57	R5	1	0	0	0	0
57	R6	1	0	0	0	0
57	R9	1	0	0	0	0
57	RY	1	0	0	0	0
57	XN	1	0	0	0	0
57	Y4	1	0	0	0	0
57	Y5	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	Y6	1	0	0	0	0
57	Y9	1	0	0	0	0
57	YY	1	0	0	0	0
All	All	291782	0	197805	4256	7

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 9.

All (4256) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:XN:24:CYS:SG	14:XN:40:CYS:HB2	1.54	1.47
4:XD:61:LYS:NZ	4:XD:61:LYS:CE	1.77	1.47
14:XN:29:ARG:HD2	14:XN:40:CYS:SG	1.67	1.33
14:XN:24:CYS:SG	14:XN:40:CYS:CB	2.36	1.14
14:XN:29:ARG:CD	14:XN:40:CYS:SG	2.36	1.13
24:RA:1657:C:O3'	27:RE:133:LYS:HG2	1.62	0.99
24:RA:1473:G:H5"	24:RA:1473:G:H8	1.29	0.97
24:RA:2135:A:H62	24:RA:2156:G:H21	1.03	0.96
24:YA:1359:A:N6	24:YA:1372:U:H3	1.63	0.96
1:XA:152:A:N6	1:XA:169:C:N3	2.14	0.93
43:YY:76:CYS:HB3	43:YY:79:CYS:SG	2.09	0.92
24:YA:1270:C:H5"	24:YA:1271:G:H5'	1.52	0.90
24:YA:2701:C:H3'	24:YA:2702:U:H5"	1.54	0.88
24:YA:2096:U:H3	24:YA:2193:G:H1	0.87	0.87
1:XA:452:A:H62	1:XA:480:U:H3	1.17	0.86
24:RA:1473:G:H5"	24:RA:1473:G:C8	2.11	0.86
10:XJ:50:ILE:H	14:XN:41:ARG:HH12	1.22	0.86
24:RA:2675:A:H5'	33:RO:31:LYS:HE3	1.57	0.85
24:YA:2099:U:H3	24:YA:2190:G:H1	1.17	0.85
24:YA:1359:A:H62	24:YA:1372:U:H3	0.89	0.85
24:RA:1264:G:OP1	50:R5:19:ARG:NH2	2.10	0.84
24:RA:1654:A:OP1	36:RR:2:ARG:HG2	1.78	0.84
51:R6:13:CYS:HB3	51:R6:16:CYS:SG	2.18	0.83
14:XN:57:ARG:HE	14:XN:58:LYS:H	1.25	0.82
24:RA:1270:C:H5"	24:RA:1271:G:H5'	1.59	0.82
16:QP:45:THR:HG22	16:QP:47:ASP:H	1.43	0.82
1:XA:439:A:OP2	1:XA:493:G:N1	2.14	0.81
44:YZ:10:ARG:NH2	44:YZ:37:VAL:O	2.14	0.81
24:RA:2135:A:H62	24:RA:2156:G:N2	1.78	0.81
24:RA:1657:C:O2'	27:RE:133:LYS:HD2	1.80	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2135:A:N6	24:RA:2156:G:H21	1.78	0.80
44:YZ:5:LEU:H	44:YZ:59:LEU:HA	1.47	0.80
24:YA:2046:G:H5'	50:Y5:19:ARG:HG3	1.64	0.79
24:YA:2245:U:H5'	24:YA:2246:G:H5'	1.64	0.79
24:RA:307:G:H2'	24:RA:309:G:OP2	1.83	0.79
7:XG:62:PHE:HA	7:XG:124:LEU:HD11	1.65	0.78
1:QA:939:G:H5'	7:QG:102:ARG:HH12	1.49	0.78
44:YZ:52:SER:O	44:YZ:54:HIS:N	2.16	0.78
14:XN:24:CYS:SG	14:XN:40:CYS:CA	2.72	0.78
24:RA:527:C:N4	24:RA:2779:U:OP2	2.15	0.78
26:RD:8:PRO:HB3	26:RD:14:ARG:HB3	1.66	0.78
1:XA:1441:G:H21	1:XA:1460:A:H62	1.30	0.77
24:YA:2371:G:O2'	51:Y6:46:HIS:ND1	2.17	0.77
1:XA:686:U:H1'	11:XK:42:TRP:HE1	1.49	0.77
7:XG:111:ARG:HH12	7:XG:123:GLU:N	1.82	0.77
14:XN:29:ARG:HD3	14:XN:40:CYS:SG	2.25	0.77
24:YA:1800:C:OP2	26:YD:183:ARG:NH1	2.16	0.77
24:YA:1859:A:N6	24:YA:1883:G:O2'	2.17	0.77
24:RA:1224:G:N2	24:RA:1227:A:OP2	2.17	0.76
24:RA:2245:U:H5'	24:RA:2246:G:H5'	1.67	0.76
44:RZ:5:LEU:HD21	44:RZ:47:VAL:HG21	1.68	0.76
24:RA:307:G:O5'	24:RA:307:G:H8	1.68	0.76
1:XA:992:U:H3	1:XA:1044:A:H62	1.34	0.76
24:YA:2125:G:O2'	24:YA:2173:A:N6	2.19	0.75
1:XA:157:G:H1	1:XA:164:U:H3	1.34	0.75
29:YG:67:LYS:HG3	49:Y4:5:ILE:HG12	1.68	0.75
24:YA:1055:G:H1	24:YA:1104:C:H42	1.34	0.74
1:QA:559:A:H4'	1:QA:560:U:H5"	1.68	0.74
1:QA:674:G:H2'	1:QA:675:A:H8	1.53	0.74
22:XV:19:G:O2'	22:XV:58:G:N2	2.20	0.74
24:RA:1817:G:OP1	26:RD:88:ARG:NH2	2.21	0.74
13:XM:99:ARG:HB3	13:XM:101:GLN:HE22	1.51	0.74
1:XA:1236:A:H4'	1:XA:1304:G:H4'	1.68	0.74
26:YD:8:PRO:HB3	26:YD:14:ARG:HB3	1.70	0.74
24:YA:2134:A:N6	24:YA:2156:G:O2'	2.21	0.73
24:YA:2584:U:H2'	24:YA:2585:U:H2'	1.70	0.73
24:RA:2406:U:OP1	24:RA:2411:A:N6	2.21	0.73
24:RA:527:C:N3	24:RA:2779:U:H5"	2.03	0.73
1:QA:618:C:H5'	1:QA:619:U:H5"	1.70	0.73
8:QH:29:SER:HB3	8:QH:32:LYS:HE2	1.69	0.73
5:XE:102:ALA:HB1	5:XE:106:PRO:HG2	1.68	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:1607:C:N4	24:YA:1622:G:OP2	2.21	0.73
24:YA:2581:G:OP2	24:YA:2581:G:N2	2.19	0.73
48:Y3:38:GLU:OE2	48:Y3:38:GLU:N	2.14	0.73
24:RA:1638:C:H5"	24:RA:2710:C:O2'	1.89	0.72
12:XL:60:LEU:HD12	12:XL:62:SER:H	1.54	0.72
24:YA:994:C:OP1	39:YU:53:ARG:NH2	2.23	0.72
1:XA:978:A:OP2	1:XA:1362(A):C:N4	2.20	0.72
9:XI:20:ARG:HE	9:XI:21:PRO:HD2	1.54	0.71
24:YA:783:A:H2'	24:YA:784:A:H4'	1.72	0.71
1:XA:410:G:H21	1:XA:432:A:H62	1.37	0.71
24:YA:888:C:H3'	24:YA:889:C:H4'	1.72	0.71
14:QN:27:CYS:SG	14:QN:40:CYS:HB3	2.30	0.71
1:XA:1123:A:H4'	10:XJ:36:GLY:HA3	1.71	0.71
1:XA:1422:G:H5"	33:YO:48:PRO:HB3	1.73	0.71
44:RZ:5:LEU:H	44:RZ:59:LEU:HA	1.54	0.71
1:XA:674:G:H2'	1:XA:675:A:H8	1.55	0.71
24:YA:1817:G:OP1	26:YD:88:ARG:NH2	2.24	0.71
25:RB:80:U:H2'	25:RB:81:G:H21	1.54	0.71
14:XN:27:CYS:SG	14:XN:40:CYS:CB	2.78	0.71
24:RA:2046:G:H5'	50:R5:19:ARG:HG3	1.73	0.71
14:XN:27:CYS:SG	14:XN:40:CYS:HB2	2.31	0.71
24:YA:517:C:OP1	50:Y5:16:ARG:NH2	2.24	0.71
11:QK:93:GLN:OE1	11:QK:96:ARG:NH2	2.24	0.71
24:RA:392:C:H5"	24:RA:409:C:H5"	1.71	0.71
1:QA:339:C:OP2	33:RO:97:ARG:NH1	2.20	0.70
1:QA:1077:G:N2	1:QA:1080:A:OP2	2.21	0.70
1:QA:1123:A:H4'	10:QJ:36:GLY:HA3	1.72	0.70
24:RA:2688:U:OP1	24:RA:2713:A:N6	2.23	0.70
24:RA:994:C:OP1	39:RU:53:ARG:NH2	2.24	0.70
44:RZ:52:SER:O	44:RZ:54:HIS:N	2.20	0.70
25:RB:33:G:H5'	29:RG:2:PRO:HG3	1.73	0.70
1:XA:261:U:OP2	20:XT:79:ARG:NH2	2.25	0.70
1:XA:689:C:H3'	1:XA:690:G:H21	1.56	0.70
46:R1:76:ARG:HH11	46:R1:94:LEU:HD23	1.57	0.70
24:YA:1026:U:H4'	24:YA:1027:A:OP1	1.92	0.70
1:XA:403:C:OP2	4:XD:74:GLN:NE2	2.24	0.70
24:YA:1670:C:C5'	24:YA:1671:U:OP2	2.40	0.70
24:YA:2646:C:OP2	24:YA:2732:G:O2'	2.10	0.70
1:XA:1318:A:H4'	19:XS:11:VAL:HG21	1.74	0.69
24:YA:67:U:H3	24:YA:74:A:H2	1.39	0.69
24:YA:288:C:H2'	24:YA:289:A:H8	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:620:G:H4'	24:YA:621:A:H5"	1.73	0.69
24:RA:630:G:N2	24:RA:633:A:OP2	2.25	0.69
25:RB:30:C:H1'	25:RB:57:A:H61	1.56	0.69
1:QA:838:G:H1	1:QA:848:C:H42	1.38	0.69
24:RA:994:C:OP2	39:RU:54:LYS:NZ	2.25	0.69
38:YT:125:ARG:HE	38:YT:129:ARG:HH12	1.39	0.69
5:QE:102:ALA:HB1	5:QE:106:PRO:HG2	1.74	0.69
14:QN:27:CYS:SG	14:QN:40:CYS:CB	2.80	0.69
24:YA:512:G:OP1	24:YA:1234:U:O2'	2.10	0.69
1:QA:782:A:H62	1:QA:800:G:H21	1.40	0.69
24:RA:2115:G:N1	24:RA:2164:C:OP2	2.26	0.69
1:XA:618:C:H5'	1:XA:619:U:H5"	1.73	0.69
24:YA:571:A:H5'	24:YA:2030:A:H62	1.57	0.69
24:YA:1670:C:H5"	24:YA:1671:U:OP2	1.93	0.69
1:XA:1227:A:OP1	19:XS:80:TYR:OH	2.10	0.69
24:YA:1012:U:O2'	24:YA:1013:C:OP2	2.11	0.69
24:YA:1509:C:H3'	24:YA:1510:A:H5"	1.74	0.69
1:XA:1348:U:H4'	9:XI:120:ARG:HD2	1.74	0.69
9:XI:9:ARG:HG3	9:XI:104:ARG:HH21	1.56	0.69
1:XA:677:U:H3	1:XA:713:G:H22	1.41	0.69
1:QA:689:C:H3'	1:QA:690:G:H21	1.57	0.69
1:QA:1400:C:O4'	23:QX:21:G:C6	2.46	0.69
1:QA:1306:A:N6	1:QA:1331:G:O2'	2.25	0.69
12:QL:46:LYS:HZ2	12:QL:47:LYS:H	1.40	0.69
1:XA:1157:A:N7	1:XA:1178:G:N2	2.40	0.69
3:XC:6:HIS:CE1	3:XC:8:ILE:HB	2.28	0.69
24:YA:996:A:OP2	39:YU:92:ARG:NH2	2.27	0.68
1:QA:1504:G:OP1	1:QA:1507:A:O2'	2.10	0.68
24:RA:993:G:OP1	39:RU:50:ARG:NH2	2.25	0.68
24:YA:1012:U:C2'	24:YA:1013:C:OP2	2.41	0.68
24:YA:1030:G:OP2	35:YQ:128:LYS:NZ	2.26	0.68
24:YA:2154:G:H2'	24:YA:2155:G:H8	1.57	0.68
54:Y9:13:LYS:HD2	54:Y9:28:GLU:H	1.57	0.68
24:RA:1433:U:H3	24:RA:1560:G:H1	1.41	0.68
28:RF:158:THR:O	28:RF:164:ARG:NH1	2.26	0.68
24:RA:309:G:OP2	24:RA:309:G:C8	2.46	0.68
24:RA:141:A:H8	24:RA:1595:G:H21	1.42	0.68
29:RG:29:TRP:O	29:RG:33:ARG:NH1	2.27	0.68
24:YA:1359:A:N7	24:YA:1372:U:O4	2.26	0.68
24:YA:1728:G:N1	24:YA:1730:U:OP2	2.26	0.68
1:QA:261:U:OP2	20:QT:79:ARG:NH2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:XE:63:ARG:HA	5:XE:66:MET:HE2	1.76	0.68
1:XA:264:U:O2'	17:XQ:64:PRO:O	2.11	0.68
38:YT:5:ALA:HA	38:YT:8:LYS:HD3	1.74	0.68
1:QA:811:C:O2'	1:QA:901:A:N1	2.27	0.68
4:XD:61:LYS:NZ	4:XD:61:LYS:CD	2.55	0.68
10:QJ:3:LYS:N	10:QJ:74:ILE:O	2.27	0.67
1:XA:1266:G:N2	1:XA:1269:A:OP2	2.21	0.67
24:YA:1110:G:H4'	30:YH:3:ARG:HE	1.60	0.67
24:YA:2291:U:H3	24:YA:2341:G:H1	1.42	0.67
24:YA:2788:C:O2'	24:YA:2809:A:N3	2.26	0.67
3:XC:18:TRP:O	3:XC:21:ARG:NH2	2.27	0.67
24:RA:2711:A:H5"	24:RA:2712:U:H5"	1.75	0.67
35:RQ:65:PHE:HB2	35:RQ:105:GLU:HB3	1.75	0.67
24:YA:2296:U:OP2	37:YS:9:ARG:NH1	2.28	0.67
24:YA:2821:A:OP2	24:YA:2822:G:OP2	2.11	0.67
1:QA:45:U:H3	1:QA:396:G:H1	1.43	0.67
3:XC:85:ARG:HA	3:XC:88:ARG:HE	1.59	0.67
24:RA:2285:C:OP2	51:R6:6:ARG:NH1	2.28	0.67
1:XA:553:A:H5"	12:XL:24:VAL:HG21	1.76	0.67
1:XA:812:C:H4'	1:XA:813:U:H5'	1.75	0.67
5:XE:75:THR:OG1	5:XE:76:ILE:N	2.28	0.67
24:YA:593:G:H4'	53:Y8:61:LEU:HD13	1.77	0.67
24:YA:1728:G:H8	24:YA:1732:A:H62	1.43	0.66
34:YP:65:ARG:HE	53:Y8:15:LYS:HB2	1.60	0.66
12:XL:114:LYS:O	12:XL:117:ARG:NH1	2.28	0.66
44:YZ:4:ARG:HB3	44:YZ:60:GLU:HG3	1.78	0.66
46:Y1:83:GLU:HG2	46:Y1:85:LEU:H	1.60	0.66
1:QA:806:C:H2'	1:QA:807:A:H8	1.61	0.66
24:RA:27:G:N2	24:RA:513:A:OP2	2.29	0.66
24:RA:676:A:H8	24:RA:2069:G:H21	1.43	0.66
1:QA:1222:G:OP1	19:QS:78:ARG:NH1	2.27	0.66
49:Y4:46:GLN:HG3	49:Y4:48:ARG:HE	1.60	0.66
24:RA:309:G:N3	24:RA:329:G:O2'	2.28	0.66
1:XA:261:U:N3	1:XA:264:U:OP2	2.28	0.66
19:XS:19:VAL:HG21	19:XS:44:MET:HG2	1.78	0.66
24:YA:850:C:N4	24:YA:929:G:N2	2.43	0.66
51:R6:13:CYS:CB	51:R6:16:CYS:SG	2.82	0.66
1:QA:316:G:OP2	1:QA:351:G:O2'	2.13	0.66
5:QE:35:GLY:HA3	5:QE:112:LEU:HB3	1.76	0.66
14:QN:24:CYS:CB	14:QN:27:CYS:SG	2.79	0.66
24:RA:2747:G:H21	24:RA:2757:A:H62	1.42	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:RO:104:ARG:HH11	33:RO:121:VAL:HG22	1.61	0.66
51:Y6:13:CYS:HB3	51:Y6:16:CYS:SG	2.35	0.66
1:QA:1347:G:N2	1:QA:1374:A:OP2	2.24	0.66
22:QV:19:G:O2'	22:QV:58:G:N2	2.29	0.66
24:RA:2638:G:OP1	27:RE:82:ARG:NH2	2.29	0.66
34:YP:58:THR:O	34:YP:61:ARG:NH2	2.28	0.66
1:QA:553:A:H5"	12:QL:24:VAL:HG11	1.78	0.66
1:QA:677:U:H3	1:QA:713:G:H22	1.40	0.66
1:XA:946:A:O2'	1:XA:1333:A:N3	2.29	0.66
24:YA:141:A:H8	24:YA:1595:G:H21	1.42	0.65
1:QA:1023:G:H3'	1:QA:1024:G:H5"	1.79	0.65
24:YA:630:G:OP1	53:Y8:46:ARG:NH1	2.30	0.65
1:QA:1522:U:H2'	1:QA:1523:G:H8	1.62	0.65
1:XA:579:G:H5'	1:XA:728:A:H1'	1.76	0.65
1:XA:662:G:O2'	1:XA:836:G:OP1	2.15	0.65
2:QB:54:THR:HG22	2:QB:199:TYR:HB3	1.77	0.65
14:XN:24:CYS:CB	14:XN:27:CYS:SG	2.85	0.65
51:Y6:10:LEU:HD23	51:Y6:19:ARG:HG2	1.78	0.65
1:QA:953:G:N7	13:QM:104:ARG:NH2	2.44	0.65
3:QC:173:VAL:HG22	3:QC:203:PHE:HB2	1.78	0.65
1:XA:581:G:N1	1:XA:759:A:OP2	2.28	0.65
14:XN:24:CYS:SG	14:XN:40:CYS:N	2.70	0.65
37:YS:20:ARG:NH2	45:Y0:51:VAL:O	2.26	0.65
1:QA:439:A:OP2	1:QA:493:G:N1	2.29	0.65
24:RA:1607:C:N4	24:RA:1622:G:OP2	2.29	0.65
2:XB:54:THR:HG22	2:XB:199:TYR:HB3	1.78	0.65
21:XU:12:LYS:HB3	21:XU:22:ARG:HD3	1.79	0.65
24:RA:26:G:H1'	24:RA:515:A:H61	1.62	0.65
24:RA:2816:C:O2	24:RA:2883:A:O2'	2.14	0.65
1:XA:324:G:H8	1:XA:324:G:O5'	1.80	0.65
1:XA:745:C:H2'	1:XA:746:A:H8	1.61	0.65
8:XH:111:ILE:HG23	8:XH:134:ILE:HB	1.78	0.65
53:Y8:29:LYS:O	53:Y8:31:HIS:N	2.30	0.65
24:RA:987:G:O2'	24:RA:1000:A:N3	2.30	0.65
24:YA:527:C:N4	24:YA:2779:U:OP2	2.31	0.64
24:YA:2010:G:H5"	41:YW:42:ARG:HB2	1.79	0.64
24:YA:2729:G:H1'	27:YE:187:ALA:HB2	1.79	0.64
24:RA:1365:A:O2'	46:R1:11:ARG:NH2	2.30	0.64
1:XA:235:C:H2'	1:XA:236:G:H8	1.63	0.64
24:YA:807:U:O2'	24:YA:2060:A:N1	2.29	0.64
24:RA:2404:C:H1'	34:RP:67:MET:HE1	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:XD:9:CYS:SG	4:XD:25:ARG:NH1	2.68	0.64
1:QA:1301:U:O3'	13:QM:21:TYR:OH	2.14	0.64
5:QE:79:GLU:HB3	5:QE:92:LYS:HD3	1.79	0.64
24:RA:2296:U:OP2	37:RS:9:ARG:NH1	2.30	0.64
48:Y3:38:GLU:H	48:Y3:38:GLU:CD	2.03	0.64
10:XJ:50:ILE:HA	10:XJ:60:ARG:HG3	1.79	0.64
11:QK:18:ARG:HG2	11:QK:81:ASP:HB2	1.80	0.64
24:RA:768:G:O2'	24:RA:1379:A:N6	2.30	0.64
24:RA:2882:A:OP1	36:RR:96:ARG:NH1	2.31	0.64
26:RD:124:PRO:HB2	26:RD:126:GLN:HE22	1.63	0.64
43:RY:14:LEU:HB2	43:RY:75:ILE:HD11	1.80	0.64
1:XA:578:C:O2'	1:XA:728:A:N3	2.29	0.64
24:YA:993:G:OP1	39:YU:50:ARG:NH2	2.31	0.64
29:YG:67:LYS:HE3	49:Y4:7:PRO:HD3	1.78	0.64
40:YV:61:VAL:HG12	40:YV:63:GLY:H	1.63	0.64
24:RA:989:G:OP2	48:R3:11:SER:OG	2.15	0.64
1:XA:521:G:HO2'	1:XA:536:C:HO2'	1.44	0.64
2:XB:219:VAL:HA	2:XB:222:ILE:HD12	1.80	0.64
24:YA:574:C:N3	27:YE:145:LYS:NZ	2.45	0.64
1:QA:343:U:O2	1:QA:346:G:N2	2.28	0.64
9:QI:112:LYS:NZ	9:QI:113:LYS:O	2.30	0.64
30:YH:151:ILE:O	30:YH:153:LYS:N	2.30	0.64
1:QA:1116:C:H2'	1:QA:1117:G:H8	1.63	0.64
3:XC:11:ARG:NH2	3:XC:177:THR:O	2.31	0.64
4:XD:100:ARG:NH2	4:XD:136:PRO:O	2.31	0.64
24:YA:1316:U:H2'	24:YA:1317:A:H8	1.62	0.64
25:YB:30:C:H1'	25:YB:57:A:H61	1.63	0.64
1:QA:1373:G:H5'	7:QG:36:LYS:HG2	1.80	0.64
13:QM:91:ARG:HH21	13:QM:96:LEU:HB3	1.63	0.64
24:RA:308:G:O2'	24:RA:329:G:N2	2.31	0.64
24:RA:998:C:OP2	39:RU:58:ARG:NH1	2.30	0.64
2:XB:118:LEU:HD21	2:XB:142:LEU:HA	1.80	0.64
14:XN:24:CYS:SG	14:XN:33:VAL:HG22	2.38	0.64
24:YA:589:C:H2'	24:YA:590:A:H8	1.62	0.64
24:YA:2328:A:H2'	24:YA:2329:G:C8	2.33	0.64
1:QA:745:C:OP1	1:QA:851:G:O2'	2.16	0.63
1:XA:707:C:OP1	11:XK:85:ARG:NH1	2.31	0.63
20:XT:58:LYS:O	20:XT:61:SER:OG	2.15	0.63
1:QA:514:C:H2'	1:QA:515:G:H8	1.63	0.63
24:RA:67:U:O5'	24:RA:67:U:H6	1.80	0.63
1:XA:380:G:N2	1:XA:383:A:OP2	2.25	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:544:G:OP1	4:XD:59:ARG:NH2	2.30	0.63
51:Y6:13:CYS:CB	51:Y6:16:CYS:SG	2.79	0.63
1:XA:1253:G:H4'	10:XJ:46:ARG:HH12	1.64	0.63
20:XT:14:LYS:HA	20:XT:17:ARG:HD3	1.80	0.63
10:QJ:19:SER:HA	10:QJ:22:LYS:HD2	1.79	0.63
24:RA:587:C:OP2	34:RP:21:ARG:NH1	2.31	0.63
24:RA:776:G:N1	24:RA:2072:G:OP1	2.30	0.63
1:XA:953:G:N7	13:XM:104:ARG:NH2	2.46	0.63
24:YA:270(I):G:H1	24:YA:270(Q):C:H42	1.46	0.63
24:YA:694:U:H3	24:YA:768:G:H1	1.44	0.63
24:YA:2068:U:H3	24:YA:2430:A:H2	1.43	0.63
27:YE:17:ASP:O	27:YE:19:ARG:N	2.32	0.63
26:RD:13:ARG:NH1	26:RD:16:MET:SD	2.71	0.63
34:RP:58:THR:O	34:RP:61:ARG:NH2	2.31	0.63
24:YA:2680:C:H5'	27:YE:189:PRO:HA	1.80	0.63
24:RA:1509:C:H3'	24:RA:1510:A:H5"	1.79	0.63
1:XA:358:U:H2'	1:XA:359:U:C6	2.34	0.63
19:XS:40:ILE:HG13	19:XS:44:MET:HE3	1.79	0.63
24:YA:297:C:OP1	43:YY:87:LYS:NZ	2.31	0.63
24:RA:1152:C:H2'	24:RA:1153:C:H6	1.63	0.63
1:XA:1224:G:O2'	1:XA:1322:C:OP2	2.17	0.63
9:XI:121:ARG:NH1	9:XI:122:ALA:O	2.32	0.63
24:YA:277:C:C5'	24:YA:278:A:H5'	2.29	0.63
1:QA:1305:G:N2	1:QA:1332:A:OP2	2.32	0.62
10:QJ:41:PRO:HB2	10:QJ:43:ARG:HH22	1.63	0.62
13:QM:25:ILE:HD11	13:QM:66:LEU:HD11	1.79	0.62
24:YA:919:G:N2	24:YA:2269:A:OP2	2.32	0.62
24:RA:883:G:H1	24:RA:893:C:H42	1.47	0.62
24:RA:2228:G:OP1	26:RD:261:LYS:NZ	2.25	0.62
27:RE:17:ASP:O	27:RE:19:ARG:N	2.30	0.62
13:XM:57:ARG:HH22	49:Y4:34:GLU:HB2	1.64	0.62
24:YA:1264:G:OP1	50:Y5:19:ARG:NH2	2.19	0.62
1:XA:714:G:H2'	1:XA:715:A:C8	2.34	0.62
1:XA:715:A:H2'	1:XA:716:A:C8	2.34	0.62
24:YA:270:A:OP2	24:YA:270(Y):G:N1	2.31	0.62
24:YA:2287:A:H62	24:YA:2344:U:H3	1.46	0.62
39:RU:92:ARG:HD2	40:RV:11:GLN:HB2	1.80	0.62
1:XA:1305:G:N2	1:XA:1332:A:OP2	2.32	0.62
1:QA:1224:G:O2'	1:QA:1322:C:OP2	2.18	0.62
8:QH:32:LYS:HA	8:QH:35:ILE:HD12	1.81	0.62
24:RA:1882:C:H3'	24:RA:1883:G:H8	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:1980:G:O2'	24:YA:1982:C:OP2	2.15	0.62
10:QJ:40:LEU:HD11	10:QJ:71:LEU:HG	1.80	0.62
24:RA:1083:U:H2'	24:RA:1085:A:H5"	1.81	0.62
35:RQ:81:VAL:O	35:RQ:82:ARG:NE	2.28	0.62
1:XA:1141:C:H2'	1:XA:1142:G:H8	1.64	0.62
27:RE:176:ILE:HB	27:RE:181:LEU:HB2	1.81	0.62
28:RF:117:ARG:NH2	28:RF:189:THR:O	2.33	0.62
4:XD:25:ARG:NH1	56:XD:301:SF4:S2	2.73	0.62
1:QA:581:G:OP1	15:QO:65:ARG:NH1	2.30	0.62
5:QE:43:LEU:HD21	5:QE:109:ILE:HD12	1.80	0.62
24:RA:270(T):G:H5"	46:R1:97:LEU:HD22	1.81	0.62
24:RA:1859:A:N6	24:RA:1883:G:O2'	2.33	0.62
26:RD:143:HIS:ND1	26:RD:194:GLY:O	2.27	0.62
1:XA:1073:U:O2'	2:XB:104:ASN:OD1	2.17	0.62
24:YA:265:A:N6	24:YA:427:U:O2'	2.32	0.62
24:YA:1127:A:N7	24:YA:2488:A:O2'	2.31	0.62
1:QA:714:G:H2'	1:QA:715:A:C8	2.34	0.62
24:RA:517:C:OP1	50:R5:16:ARG:NH2	2.32	0.62
24:RA:2118:U:O2	24:RA:2148:G:O2'	2.17	0.62
1:XA:1522:U:H2'	1:XA:1523:G:H8	1.65	0.62
29:YG:35:GLU:HA	29:YG:99:MET:HE1	1.80	0.62
1:QA:1343:G:H4'	9:QI:122:ALA:HB3	1.81	0.62
24:RA:1652:A:OP1	36:RR:8:ARG:NH1	2.33	0.62
30:RH:153:LYS:HB2	30:RH:162:ILE:HG12	1.80	0.62
24:YA:577:G:O2'	24:YA:1254:A:OP1	2.18	0.62
1:QA:579:G:H5'	1:QA:728:A:H1'	1.81	0.61
15:QO:25:THR:HB	15:QO:70:LEU:HD21	1.82	0.61
47:R2:54:LYS:HA	47:R2:57:ILE:HD12	1.82	0.61
1:XA:673:G:H2'	1:XA:674:G:C8	2.35	0.61
9:XI:111:ARG:NH1	9:XI:112:LYS:O	2.33	0.61
24:YA:483:A:O2'	43:YY:49:VAL:O	2.16	0.61
24:RA:2199:A:OP1	46:R1:50:ARG:NH2	2.32	0.61
1:XA:1251:A:N3	1:XA:1369:C:O2'	2.32	0.61
2:XB:92:TYR:HE2	2:XB:94:ASN:HD22	1.47	0.61
24:YA:1138:G:H21	32:YN:106:MET:HE3	1.65	0.61
3:QC:70:VAL:HG12	3:QC:72:LYS:H	1.66	0.61
1:XA:191(G):G:O2'	20:XT:101:GLY:O	2.18	0.61
1:QA:543:C:OP2	4:QD:10:ARG:NH1	2.33	0.61
10:QJ:30:SER:O	10:QJ:78:ASN:ND2	2.34	0.61
24:RA:530:G:N1	24:RA:2022:U:OP1	2.33	0.61
24:RA:1969:A:O2'	24:RA:1972:A:N3	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:XN:29:ARG:HD2	14:XN:40:CYS:HG	1.57	0.61
24:YA:372:G:N2	24:YA:401:A:OP2	2.33	0.61
24:YA:1530:G:O6	24:YA:1542:G:N2	2.32	0.61
25:YB:22:U:H3	25:YB:61:G:H1	1.48	0.61
25:YB:80:U:H2'	25:YB:81:G:H21	1.64	0.61
34:YP:37:GLY:N	34:YP:40:SER:OG	2.33	0.61
44:YZ:53:ILE:HG22	44:YZ:71:VAL:HG13	1.83	0.61
1:QA:1119:C:H2'	1:QA:1120:G:H8	1.66	0.61
24:RA:1521:G:H8	24:RA:1521:G:H5"	1.66	0.61
24:RA:2365:G:O6	53:R8:43:GLN:NE2	2.33	0.61
24:YA:392:C:H5"	24:YA:409:C:H5"	1.82	0.61
24:YA:1026:U:C4'	24:YA:1027:A:OP1	2.48	0.61
24:YA:2224:G:OP1	26:YD:268:ARG:NH1	2.33	0.61
4:QD:25:ARG:NH1	56:QD:301:SF4:S3	2.74	0.61
24:RA:1426:G:OP2	24:RA:1427:A:O2'	2.16	0.61
27:RE:201:THR:HG22	27:RE:203:LYS:H	1.65	0.61
1:XA:363:A:OP1	12:XL:34:ARG:N	2.29	0.61
24:YA:1019:U:H3	24:YA:1142(A):A:H62	1.49	0.61
24:YA:1833:U:O2'	24:YA:1969:A:N1	2.34	0.61
24:RA:546:C:H3'	24:RA:547:A:H8	1.66	0.61
1:XA:1356:G:H2'	1:XA:1357:A:C8	2.36	0.61
1:XA:1446:A:O2'	1:XA:1447:G:O5'	2.16	0.61
22:XV:59:A:O2'	22:XV:61:U:OP2	2.13	0.61
24:RA:1058:G:N2	24:RA:1080:C:O2	2.34	0.61
24:RA:1138:G:O2'	32:RN:102:ALA:O	2.19	0.61
49:R4:58:ARG:HA	49:R4:61:ARG:HH21	1.66	0.61
1:XA:192:U:O2'	20:XT:60:GLU:OE2	2.17	0.61
12:XL:89:ARG:NH2	12:XL:93:LEU:O	2.33	0.61
17:XQ:66:SER:O	17:XQ:70:ARG:NH1	2.34	0.61
35:YQ:65:PHE:HB2	35:YQ:105:GLU:HB3	1.81	0.61
24:RA:1636:C:H2'	24:RA:1637:A:C8	2.36	0.61
24:RA:1657:C:HO2'	27:RE:133:LYS:HD2	1.65	0.61
24:RA:2701:C:H3'	24:RA:2702:U:H5"	1.81	0.61
1:QA:266:G:O2'	1:QA:267:C:OP2	2.16	0.61
1:QA:578:C:O2'	1:QA:728:A:N3	2.29	0.61
2:QB:55:PHE:HA	2:QB:58:ILE:HG12	1.83	0.61
24:RA:1011:G:OP1	39:RU:66:ASN:ND2	2.33	0.61
27:RE:78:LEU:HG	27:RE:79:ARG:HD2	1.81	0.61
33:RO:80:ASP:OD2	38:RT:64:ARG:NH2	2.34	0.61
1:XA:152:A:H62	1:XA:169:C:N4	1.99	0.61
7:XG:16:LEU:HD11	9:XI:45:ALA:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:YD:146:GLU:HB2	26:YD:189:CYS:HB3	1.83	0.61
1:QA:1073:U:O2	2:QB:104:ASN:ND2	2.33	0.60
27:RE:2:LYS:HD3	27:RE:95:ILE:HG22	1.82	0.60
54:R9:25:VAL:HB	54:R9:34:GLN:HB2	1.83	0.60
3:XC:17:ASP:O	3:XC:54:ARG:NH2	2.34	0.60
6:XF:23:LYS:HA	6:XF:26:ILE:HD12	1.83	0.60
22:XV:4:U:HO2'	22:XV:5:G:H8	1.46	0.60
13:QM:22:ILE:HD12	13:QM:22:ILE:N	2.15	0.60
26:RD:27:THR:HG21	26:RD:81:ALA:HB1	1.83	0.60
34:RP:106:LEU:HD21	34:RP:112:LEU:HD13	1.83	0.60
1:XA:1441:G:N2	1:XA:1460:A:H62	1.98	0.60
24:YA:380:U:H2'	24:YA:381:G:H8	1.66	0.60
39:YU:90:VAL:HG22	40:YV:39:LEU:HD23	1.81	0.60
1:XA:272:C:H2'	1:XA:273:A:H8	1.65	0.60
1:XA:736:C:H2'	1:XA:737:A:H8	1.65	0.60
24:YA:1138:G:O2'	32:YN:102:ALA:O	2.19	0.60
24:RA:372:G:N2	24:RA:401:A:OP2	2.34	0.60
24:RA:1288:U:O3'	24:RA:1647:G:N2	2.34	0.60
37:RS:30:ARG:HG2	37:RS:97:ARG:HH21	1.66	0.60
1:XA:736:C:H2'	1:XA:737:A:C8	2.36	0.60
1:XA:1450:U:O2'	1:XA:1451:A:N7	2.31	0.60
19:QS:41:VAL:HG13	19:QS:43:GLU:H	1.64	0.60
24:RA:2030:A:H4'	24:RA:2031:A:H8	1.67	0.60
24:YA:857:C:OP2	45:Y0:77:ARG:NH2	2.34	0.60
24:YA:1418:G:N1	24:YA:1579:A:OP2	2.29	0.60
30:YH:149:ARG:NH2	30:YH:167:GLU:OE2	2.35	0.60
1:QA:1356:G:H2'	1:QA:1357:A:C8	2.36	0.60
8:QH:112:LEU:HA	8:QH:134:ILE:HG12	1.83	0.60
24:RA:2308:G:H22	24:RA:2311:A:H2	1.50	0.60
1:XA:971:G:N2	1:XA:1363:A:OP2	2.34	0.60
1:XA:1414:U:H2'	1:XA:1415:G:H8	1.67	0.60
24:YA:117:G:OP2	24:YA:119:A:O2'	2.18	0.60
29:YG:98:ARG:NH1	49:Y4:1:MET:SD	2.74	0.60
1:QA:191(G):G:O2'	20:QT:101:GLY:O	2.19	0.60
1:QA:272:C:H2'	1:QA:273:A:H8	1.65	0.60
14:QN:45:ARG:O	14:QN:49:HIS:ND1	2.32	0.60
24:RA:262:A:N3	24:RA:430:G:O2'	2.33	0.60
24:RA:517:C:O2'	41:RW:18:ARG:NH2	2.31	0.60
24:RA:527:C:C4	24:RA:2779:U:H5"	2.36	0.60
24:RA:583:G:OP2	39:RU:10:ARG:NH1	2.33	0.60
50:R5:46:CYS:CB	50:R5:49:CYS:SG	2.89	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1347:G:N2	1:XA:1374:A:OP2	2.35	0.60
1:XA:1500:A:H5"	1:XA:1508:G:H5"	1.84	0.60
3:XC:56:ASP:HB3	3:XC:67:THR:HB	1.83	0.60
24:YA:26:G:H1'	24:YA:515:A:H61	1.66	0.60
26:YD:147:LEU:HD12	26:YD:155:LEU:HD11	1.82	0.60
1:QA:123:C:OP1	1:QA:311:C:O2'	2.20	0.60
24:RA:665:C:H2'	24:RA:666:G:H8	1.67	0.60
30:RH:85:LYS:HD3	30:RH:86:GLU:H	1.67	0.60
14:XN:39:LEU:HB2	14:XN:44:LEU:HD23	1.82	0.60
1:QA:1500:A:H5"	1:QA:1508:G:H5"	1.83	0.60
24:RA:2068:U:H3	24:RA:2430:A:H2	1.49	0.60
24:YA:1365:A:O2'	46:Y1:11:ARG:NH2	2.30	0.60
29:YG:29:TRP:O	29:YG:33:ARG:NH1	2.34	0.60
1:QA:673:G:H2'	1:QA:674:G:C8	2.36	0.60
1:QA:1376:U:OP1	7:QG:94:ARG:NH1	2.35	0.60
24:RA:1061:U:OP2	24:RA:1070:A:O2'	2.15	0.60
4:XD:12:CYS:CB	56:XD:301:SF4:S3	2.90	0.60
24:YA:770:G:OP1	52:Y7:8:ASN:ND2	2.32	0.60
1:QA:1312:G:H5'	19:QS:5:LEU:HD11	1.84	0.59
3:QC:182:ILE:HD11	3:QC:201:TYR:HB3	1.83	0.59
24:RA:782:A:O2'	26:RD:225:ALA:O	2.19	0.59
24:RA:860:U:H2'	24:RA:861:A:H8	1.67	0.59
38:RT:28:VAL:HG23	38:RT:88:ILE:HA	1.82	0.59
41:RW:69:LEU:HD23	41:RW:107:LEU:HD13	1.84	0.59
1:XA:28:G:O2'	1:XA:296:U:OP1	2.19	0.59
24:YA:1657:C:H4'	27:YE:133:LYS:HB3	1.84	0.59
24:YA:2306:C:H3'	24:YA:2307:G:H5"	1.83	0.59
18:QR:58:LEU:HD23	18:QR:62:GLU:HB3	1.83	0.59
24:RA:1030:G:OP2	35:RQ:128:LYS:NZ	2.35	0.59
24:RA:1967:C:H2'	24:RA:1968:G:O4'	2.03	0.59
1:XA:643:C:H2'	1:XA:644:G:H8	1.66	0.59
24:YA:1967:C:H2'	24:YA:1968:G:O4'	2.02	0.59
30:YH:24:VAL:HG23	30:YH:35:VAL:HB	1.83	0.59
30:RH:18:GLU:HB2	30:RH:25:LYS:HB3	1.84	0.59
45:R0:27:GLU:HG3	45:R0:68:GLU:HA	1.85	0.59
1:XA:1498:U:OP2	23:XX:16:C:O2'	2.20	0.59
4:XD:12:CYS:HB2	56:XD:301:SF4:S3	2.41	0.59
27:YE:9:VAL:HB	27:YE:25:VAL:HG23	1.84	0.59
37:YS:10:ARG:NH1	37:YS:91:PRO:O	2.35	0.59
1:QA:1304:G:OP1	21:QU:2:GLY:N	2.35	0.59
13:QM:3:ARG:HA	13:QM:9:ILE:HG21	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2328:A:H2'	24:RA:2329:G:C8	2.37	0.59
31:RI:123:LEU:HD12	31:RI:142:VAL:HG23	1.83	0.59
1:XA:119:A:C8	1:XA:288:A:N1	2.70	0.59
1:XA:713:G:H2'	1:XA:714:G:C8	2.36	0.59
1:XA:842:C:O2'	1:XA:848:C:N4	2.35	0.59
42:YX:27:THR:HB	42:YX:80:ILE:HG12	1.83	0.59
1:QA:686:U:H1'	11:QK:42:TRP:HE1	1.67	0.59
1:QA:790:A:OP1	22:QV:39:A:O2'	2.19	0.59
1:QA:1210:C:O2'	1:QA:1213:A:O2'	2.20	0.59
24:RA:662:G:OP1	34:RP:15:ARG:NH1	2.34	0.59
2:XB:132:LYS:HA	2:XB:135:GLN:HB2	1.84	0.59
16:XP:6:LEU:HD12	16:XP:17:TYR:HB3	1.85	0.59
6:QF:100:ASN:ND2	18:QR:23:LYS:O	2.27	0.59
24:RA:956:G:OP2	35:RQ:14:ARG:NH2	2.35	0.59
24:RA:1363:C:O2'	24:RA:1809:A:N3	2.33	0.59
24:RA:2576:G:O2'	24:RA:2579:C:OP2	2.20	0.59
24:RA:2626:C:H2'	24:RA:2627:G:H8	1.68	0.59
19:XS:63:THR:H	19:XS:66:MET:HE3	1.67	0.59
24:YA:526:A:OP1	24:YA:527:C:OP1	2.20	0.59
24:YA:2471:C:H3'	24:YA:2472:G:H8	1.68	0.59
7:QG:117:ALA:HA	7:QG:120:ILE:HD12	1.85	0.59
24:RA:764:A:H5'	26:RD:210:GLY:HA2	1.84	0.59
24:RA:2893:G:H5"	24:RA:2894:G:H5'	1.84	0.59
26:RD:155:LEU:HD23	26:RD:177:LEU:HD11	1.84	0.59
35:RQ:41:TRP:HB3	35:RQ:94:VAL:HG11	1.85	0.59
1:XA:972:C:H4'	10:XJ:57:LYS:HB2	1.84	0.59
24:YA:259:G:HO2'	24:YA:621:A:HO2'	1.46	0.59
24:YA:2123:G:H2'	24:YA:2124:G:H8	1.68	0.59
30:RH:45:VAL:HA	30:RH:50:VAL:HG12	1.84	0.59
48:R3:8:LEU:HG	48:R3:28:LEU:HD13	1.85	0.59
24:YA:1405:U:H2'	24:YA:1406:U:H6	1.68	0.59
2:QB:32:ILE:HD11	2:QB:40:HIS:HB3	1.85	0.59
24:RA:2635:C:OP1	27:RE:78:LEU:HD13	2.03	0.59
27:YE:2:LYS:HE3	27:YE:95:ILE:HG22	1.84	0.59
37:YS:110:LEU:HD12	37:YS:112:PHE:H	1.68	0.59
1:QA:689:C:OP1	11:QK:44:SER:OG	2.15	0.59
1:QA:827:U:O2	1:QA:874:G:N2	2.36	0.59
1:QA:1321:C:H5"	1:QA:1322:C:H5"	1.85	0.59
6:QF:47:ARG:HH22	6:QF:56:PRO:HB2	1.68	0.59
20:QT:53:LEU:HD23	20:QT:100:ILE:HG23	1.84	0.59
24:RA:577:G:O2'	24:RA:1254:A:OP1	2.21	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1754:C:OP1	38:RT:96:ARG:NH1	2.36	0.59
31:RI:14:ASP:O	31:RI:16:GLY:N	2.36	0.59
1:XA:1209:C:O2'	1:XA:1214:C:N4	2.35	0.59
14:XN:27:CYS:SG	14:XN:40:CYS:HB3	2.43	0.59
16:XP:6:LEU:HB3	16:XP:17:TYR:HD1	1.67	0.59
24:YA:840:C:H2'	24:YA:841:A:H8	1.68	0.59
24:YA:1012:U:O2'	24:YA:1013:C:P	2.61	0.59
25:YB:44:G:O2'	25:YB:47:C:N4	2.34	0.59
1:QA:1422:G:H5"	33:RO:48:PRO:HB3	1.84	0.58
4:QD:15:GLU:HG2	4:QD:63:LYS:HD3	1.85	0.58
7:QG:67:GLU:HA	7:QG:70:LYS:HD3	1.84	0.58
13:QM:25:ILE:CD1	13:QM:66:LEU:HD11	2.33	0.58
1:XA:514:C:H2'	1:XA:515:G:H8	1.68	0.58
1:XA:1095:U:OP2	1:XA:1108:G:N1	2.36	0.58
24:YA:987:G:O2'	24:YA:1000:A:N3	2.34	0.58
24:YA:1309:G:HO2'	24:YA:1611:C:HO2'	1.50	0.58
33:YO:107:ARG:NH1	38:YT:36:GLU:OE2	2.36	0.58
24:RA:1138:G:H21	32:RN:106:MET:HE3	1.68	0.58
24:RA:1212:G:N2	24:RA:1236:G:O2'	2.33	0.58
24:RA:2323:G:H1	24:RA:2332:U:H3	1.50	0.58
1:XA:486:U:H2'	1:XA:487:A:H8	1.67	0.58
1:QA:1085:U:OP1	1:QA:1094:G:N2	2.36	0.58
7:QG:116:ALA:HA	7:QG:119:ARG:HE	1.68	0.58
24:RA:2119:A:N6	24:RA:2170:A:N7	2.50	0.58
37:RS:10:ARG:NH1	37:RS:91:PRO:O	2.37	0.58
50:R5:36:CYS:HB3	50:R5:49:CYS:HB3	1.85	0.58
24:YA:321:G:O2'	24:YA:340:A:N3	2.36	0.58
24:YA:2314:C:H2'	24:YA:2315:G:H8	1.68	0.58
24:YA:2718:G:O2'	24:YA:2847:U:OP1	2.20	0.58
1:QA:1266:G:N2	1:QA:1269:A:OP2	2.27	0.58
4:QD:100:ARG:NH2	4:QD:136:PRO:O	2.36	0.58
5:QE:75:THR:OG1	5:QE:76:ILE:N	2.28	0.58
24:RA:2008:C:H2'	24:RA:2009:G:H8	1.68	0.58
34:RP:68:GLN:HG2	53:R8:12:LYS:HG2	1.85	0.58
1:XA:426:G:OP1	4:XD:38:TYR:OH	2.17	0.58
6:XF:80:ARG:HE	6:XF:88:VAL:HB	1.69	0.58
1:XA:34:C:H2'	1:XA:35:G:H8	1.69	0.58
1:XA:243:A:H4'	1:XA:244:U:O5'	2.02	0.58
2:XB:80:ILE:HD13	2:XB:212:GLN:HB2	1.86	0.58
1:QA:1502:A:H2	1:QA:1505:G:H1	1.52	0.58
6:QF:14:LEU:HD11	6:QF:18:GLN:HB2	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:954:G:H21	1:XA:1227:A:H62	1.50	0.58
12:XL:37:CYS:HA	12:XL:58:VAL:HA	1.86	0.58
1:QA:189:U:O2	17:QQ:63:ARG:NH2	2.36	0.58
6:QF:23:LYS:HA	6:QF:26:ILE:HD12	1.85	0.58
24:RA:299:A:N3	24:RA:319:C:O2'	2.35	0.58
24:RA:1798:U:O2'	24:RA:1802:A:N3	2.36	0.58
30:RH:41:MET:HE3	30:RH:64:LEU:HB3	1.85	0.58
44:RZ:52:SER:O	44:RZ:54:HIS:ND1	2.34	0.58
46:R1:65:SER:HG	46:R1:66:HIS:HD1	1.51	0.58
1:XA:855:G:OP2	1:XA:871:U:N3	2.37	0.58
1:QA:34:C:H2'	1:QA:35:G:H8	1.69	0.58
1:QA:1432:G:OP1	38:RT:108:ARG:N	2.37	0.58
24:RA:2328:A:H2'	24:RA:2329:G:H8	1.68	0.58
24:YA:1062:G:N2	24:YA:1077:A:N1	2.51	0.58
24:YA:1818:U:OP2	26:YD:157:ARG:NE	2.36	0.58
26:YD:143:HIS:ND1	26:YD:194:GLY:O	2.31	0.58
1:QA:7:G:H5'	1:QA:298:A:O4'	2.03	0.58
1:QA:407:G:H5"	4:QD:115:ARG:HD3	1.85	0.58
24:RA:300:A:OP1	43:RY:86:ARG:NH2	2.36	0.58
24:RA:414:C:O2	24:RA:1864:U:O2'	2.22	0.58
53:R8:29:LYS:O	53:R8:31:HIS:N	2.37	0.58
1:XA:1455:G:H5"	20:XT:31:SER:HB2	1.86	0.58
14:XN:57:ARG:HH21	14:XN:58:LYS:HG2	1.69	0.58
24:YA:1902:C:OP1	26:YD:242:ARG:NH1	2.37	0.58
24:YA:2151:G:H2'	24:YA:2152:G:H8	1.69	0.58
24:YA:2213:U:O2	46:Y1:52:ARG:NH2	2.37	0.58
24:YA:2328:A:H2'	24:YA:2329:G:H8	1.69	0.58
24:YA:2642:G:H5'	32:YN:78:TYR:CD2	2.39	0.58
26:YD:148:GLU:HB2	26:YD:151:LYS:HD2	1.86	0.58
27:YE:201:THR:HG22	27:YE:203:LYS:H	1.68	0.58
7:QG:45:ASP:OD2	7:QG:115:ARG:NH2	2.37	0.58
24:RA:630:G:OP1	53:R8:46:ARG:NH1	2.37	0.58
24:RA:1272:A:OP2	24:RA:1647:G:OP1	2.21	0.58
8:XH:109:ILE:HD11	8:XH:120:THR:HB	1.85	0.58
24:YA:2747:G:H21	24:YA:2757:A:H62	1.52	0.58
28:YF:134:GLY:H	28:YF:162:LEU:HD12	1.69	0.58
33:YO:80:ASP:OD2	38:YT:64:ARG:NH2	2.37	0.58
50:Y5:16:ARG:NH1	50:Y5:17:ASP:OD1	2.37	0.58
1:QA:376:G:H5"	16:QP:5:ARG:HB2	1.85	0.57
24:RA:521:G:H2'	24:RA:522:G:H8	1.69	0.57
26:RD:142:VAL:HG23	26:RD:193:VAL:HA	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:RE:48:GLN:OE1	27:RE:64:LYS:NZ	2.37	0.57
38:RT:123:GLN:O	38:RT:125:ARG:N	2.37	0.57
47:R2:10:LEU:HD21	47:R2:14:ARG:HH21	1.69	0.57
24:YA:955:C:OP1	35:YQ:85:LYS:NZ	2.32	0.57
1:QA:816:A:OP1	1:QA:1526:G:O2'	2.21	0.57
1:QA:1080:A:H5'	5:QE:16:THR:HG21	1.85	0.57
13:QM:14:ARG:NH2	13:QM:16:ASP:OD2	2.37	0.57
24:RA:345:A:H2'	24:RA:347:A:H62	1.70	0.57
24:RA:593:G:H4'	53:R8:61:LEU:HD13	1.86	0.57
1:XA:31:G:O2'	1:XA:48:C:N4	2.36	0.57
1:XA:78:G:O2'	1:XA:79:G:OP1	2.20	0.57
1:XA:1510:U:H2'	1:XA:1511:G:C8	2.40	0.57
24:YA:510:C:C2'	24:YA:511:U:H5'	2.34	0.57
24:YA:1109:C:O2'	24:YA:1110:G:OP1	2.21	0.57
24:YA:2705:A:O2'	24:YA:2852:G:OP1	2.16	0.57
27:YE:16:ARG:NH2	27:YE:171:GLU:OE2	2.37	0.57
50:Y5:36:CYS:HB3	50:Y5:49:CYS:HB3	1.85	0.57
50:Y5:41:PRO:O	50:Y5:44:THR:OG1	2.21	0.57
1:QA:738:C:OP1	6:QF:2:ARG:NH1	2.37	0.57
24:RA:65:C:H1'	24:RA:456:C:H42	1.68	0.57
29:RG:114:ILE:HA	29:RG:136:ARG:HH22	1.69	0.57
32:RN:34:LEU:HD12	32:RN:107:LEU:HD11	1.86	0.57
1:XA:1264:C:H2'	1:XA:1265:G:H8	1.69	0.57
6:XF:94:GLN:OE1	18:XR:32:ARG:NH1	2.37	0.57
14:XN:27:CYS:HB3	14:XN:43:CYS:SG	2.43	0.57
24:YA:603:A:N1	24:YA:625:G:O2'	2.35	0.57
11:QK:86:GLY:O	11:QK:91:ARG:NH1	2.38	0.57
24:RA:321:G:O2'	24:RA:340:A:N3	2.36	0.57
24:RA:1225:C:O2	40:RV:85:LYS:NZ	2.32	0.57
24:RA:1600:C:H2'	24:RA:1601:G:H8	1.68	0.57
38:RT:132:LYS:O	38:RT:136:GLN:NE2	2.37	0.57
48:R3:15:TYR:O	48:R3:20:LYS:NZ	2.38	0.57
1:XA:1224:G:H21	13:XM:102:ARG:HH22	1.52	0.57
24:YA:2329:G:H2'	24:YA:2330:G:H8	1.68	0.57
24:RA:1059:G:O6	24:RA:1079:C:N4	2.37	0.57
41:RW:24:ILE:HA	41:RW:27:LYS:HD2	1.85	0.57
2:XB:55:PHE:HA	2:XB:58:ILE:HG12	1.87	0.57
24:YA:193:U:N3	24:YA:203:C:O2	2.38	0.57
48:Y3:15:TYR:O	48:Y3:20:LYS:NZ	2.37	0.57
1:QA:235:C:H2'	1:QA:236:G:H8	1.70	0.57
24:RA:958:U:OP2	35:RQ:14:ARG:NH1	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1043:C:H42	24:RA:1112:G:H1	1.51	0.57
24:YA:604:G:OP2	34:YP:90:ARG:NH1	2.37	0.57
24:YA:662:G:OP1	34:YP:15:ARG:NH1	2.38	0.57
24:YA:814:C:H41	34:YP:25:SER:HA	1.70	0.57
24:YA:2140:C:H2'	24:YA:2141:G:H8	1.67	0.57
24:YA:2626:C:H2'	24:YA:2627:G:H8	1.70	0.57
1:QA:684:A:O2'	11:QK:39:PRO:O	2.20	0.57
3:QC:14:ILE:HG12	3:QC:15:THR:HG23	1.86	0.57
24:RA:627:A:H4'	24:RA:628:G:H5'	1.86	0.57
24:RA:834:C:H2'	24:RA:835:A:H8	1.70	0.57
24:RA:2047:U:H2'	24:RA:2048:G:H8	1.70	0.57
24:RA:2547:U:O2	33:RO:23:ARG:NH2	2.38	0.57
1:XA:565:U:H5"	1:XA:566:G:H2'	1.87	0.57
1:XA:1356:G:H2'	1:XA:1357:A:H8	1.68	0.57
24:YA:277:C:H5"	24:YA:278:A:H5'	1.85	0.57
24:YA:2329:G:H2'	24:YA:2330:G:C8	2.40	0.57
24:YA:2635:C:O2'	27:YE:80:GLU:OE2	2.20	0.57
24:YA:2867:G:O2'	24:YA:2868:A:H8	1.88	0.57
1:QA:770:C:H2'	1:QA:771:G:H8	1.69	0.57
1:QA:1186:G:H2'	9:QI:111:ARG:HH22	1.69	0.57
2:QB:78:GLN:O	2:QB:94:ASN:ND2	2.36	0.57
3:QC:19:GLU:HG2	3:QC:40:ARG:HH21	1.69	0.57
24:RA:1262:A:OP1	41:RW:99:ARG:NH1	2.34	0.57
44:RZ:10:ARG:NH2	44:RZ:37:VAL:O	2.37	0.57
45:R0:25:ARG:HB2	45:R0:37:LEU:HD13	1.86	0.57
1:XA:973:G:H3'	1:XA:974:A:H5"	1.85	0.57
28:YF:116:ASP:OD1	28:YF:119:ARG:NH2	2.37	0.57
39:YU:92:ARG:HD2	40:YV:11:GLN:HB2	1.87	0.57
44:YZ:52:SER:O	44:YZ:54:HIS:ND1	2.38	0.57
1:QA:298:A:H8	1:QA:298:A:OP1	1.88	0.57
1:QA:1172:C:H2'	1:QA:1173:G:H8	1.70	0.57
1:QA:1296:C:OP1	13:QM:44:ARG:NH2	2.38	0.57
1:QA:1298:C:OP2	7:QG:114:ARG:NH1	2.38	0.57
24:RA:517:C:HO2'	41:RW:18:ARG:HH22	1.52	0.57
1:XA:107:G:OP1	1:XA:325:A:N6	2.38	0.57
1:XA:599:C:O2'	8:XH:129:VAL:O	2.18	0.57
3:XC:150:LYS:HE3	3:XC:167:TRP:HE1	1.70	0.57
24:YA:775:G:H4'	24:YA:776:G:H5'	1.86	0.57
24:YA:782:A:O2'	26:YD:225:ALA:O	2.22	0.57
24:YA:1353:A:OP2	24:YA:1377:G:N1	2.30	0.57
32:YN:34:LEU:O	32:YN:49:GLY:HA3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:YT:29:ARG:HB2	38:YT:46:GLU:HG3	1.87	0.57
1:QA:715:A:H2'	1:QA:716:A:C8	2.39	0.57
1:QA:1074:G:O2'	2:QB:103:THR:OG1	2.23	0.57
3:QC:11:ARG:NH2	3:QC:177:THR:O	2.38	0.57
3:QC:58:GLU:HB2	3:QC:65:ALA:HB3	1.86	0.57
1:XA:522:C:H41	12:XL:53:ARG:HH22	1.51	0.57
24:YA:2495:G:H5"	35:YQ:81:VAL:HG12	1.87	0.57
25:YB:33:G:H5'	29:YG:2:PRO:HG3	1.87	0.57
42:YX:36:LYS:NZ	42:YX:54:VAL:O	2.34	0.57
1:QA:235:C:O2	17:QQ:4:LYS:NZ	2.33	0.56
24:RA:275:G:H3'	24:RA:276:A:H5"	1.87	0.56
26:RD:108:PRO:HA	26:RD:196:VAL:HA	1.86	0.56
1:XA:1321:C:H5"	1:XA:1322:C:H2'	1.86	0.56
2:XB:82:ARG:NH1	2:XB:92:TYR:OH	2.38	0.56
24:YA:144:C:H2'	24:YA:145:G:H8	1.70	0.56
1:QA:1053:G:H5'	1:QA:1054:C:H5'	1.85	0.56
13:QM:108:ARG:HE	13:QM:114:ARG:HD2	1.69	0.56
24:RA:815:C:OP2	40:RV:83:ARG:NH1	2.39	0.56
24:RA:2232:U:OP2	46:R1:40:ARG:NH2	2.37	0.56
25:RB:22:U:H3	25:RB:61:G:H1	1.52	0.56
27:RE:52:LEU:O	27:RE:74:PRO:HA	2.05	0.56
32:RN:34:LEU:HD11	32:RN:120:LEU:HD12	1.88	0.56
34:RP:47:ASP:OD2	34:RP:50:ARG:NH2	2.38	0.56
1:XA:401:C:O2'	1:XA:621:A:N3	2.37	0.56
24:YA:814:C:H1'	24:YA:1226:G:H21	1.70	0.56
24:YA:1315:C:O2'	24:YA:1392:A:N3	2.35	0.56
24:YA:2030:A:H4'	24:YA:2031:A:H8	1.69	0.56
53:Y8:33:ASN:HA	53:Y8:36:LYS:HD2	1.85	0.56
19:QS:22:LEU:HD21	19:QS:28:LYS:HA	1.87	0.56
24:RA:2848:G:O2'	24:RA:2867:G:N2	2.37	0.56
35:RQ:134:ARG:NH1	44:RZ:119:GLU:OE2	2.38	0.56
44:RZ:4:ARG:HB3	44:RZ:60:GLU:HG3	1.87	0.56
46:R1:52:ARG:NH2	46:R1:55:GLY:O	2.37	0.56
1:XA:933:G:O6	7:XG:3:ARG:NH2	2.38	0.56
1:XA:992:U:O4	1:XA:1044:A:N7	2.39	0.56
1:XA:1368:G:OP1	9:XI:111:ARG:NH2	2.37	0.56
3:XC:153:VAL:HB	3:XC:196:LEU:HD21	1.87	0.56
4:XD:61:LYS:NZ	4:XD:61:LYS:HG2	2.21	0.56
9:XI:9:ARG:H	9:XI:79:LEU:HD23	1.69	0.56
10:XJ:51:ARG:O	14:XN:45:ARG:NH1	2.38	0.56
24:YA:447:A:H4'	24:YA:449:A:N7	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:467:G:N7	52:Y7:39:ARG:NH2	2.54	0.56
24:YA:1354:A:H3'	24:YA:1355:G:H8	1.71	0.56
24:YA:2023:G:H5'	24:YA:2617:C:H4'	1.87	0.56
28:YF:116:ASP:OD2	34:YP:1:MET:N	2.37	0.56
9:QI:28:VAL:HG12	9:QI:63:ILE:HB	1.87	0.56
19:QS:3:ARG:HH22	19:QS:7:LYS:HB2	1.70	0.56
24:RA:1171:G:N7	24:RA:1174:A:N6	2.52	0.56
24:RA:2696:U:H2'	24:RA:2697:G:C8	2.41	0.56
24:YA:1592:C:H2'	24:YA:1593:G:H8	1.71	0.56
1:QA:191(F):U:H2'	1:QA:191(G):G:H8	1.70	0.56
1:QA:713:G:H2'	1:QA:714:G:C8	2.41	0.56
19:QS:50:ALA:HB1	19:QS:57:HIS:HB3	1.87	0.56
24:RA:1689:A:H62	24:RA:1698:A:H2	1.53	0.56
26:RD:16:MET:HE3	26:RD:211:ARG:HD2	1.87	0.56
1:XA:501:C:H2'	1:XA:502:G:H8	1.71	0.56
7:XG:150:ALA:HB1	11:XK:57:THR:HG21	1.87	0.56
24:YA:589:C:H2'	24:YA:590:A:C8	2.41	0.56
24:YA:1062:G:H1	24:YA:1076:C:H42	1.54	0.56
24:RA:2680:C:H5'	27:RE:189:PRO:HA	1.86	0.56
1:XA:143:A:H2	1:XA:220:G:H1	1.53	0.56
1:XA:414:A:OP2	1:XA:428:G:N2	2.36	0.56
43:YY:29:GLU:HB3	43:YY:38:ILE:HD12	1.86	0.56
1:QA:1230:C:H5'	22:QV:31:C:H5"	1.88	0.56
6:QF:9:VAL:HB	6:QF:87:ARG:HB2	1.87	0.56
30:RH:40:GLU:HA	30:RH:42:ARG:HH12	1.70	0.56
1:XA:953:G:H5'	1:XA:965:A:H61	1.70	0.56
1:XA:1077:G:N2	1:XA:1080:A:OP2	2.28	0.56
4:XD:182:LYS:HD3	4:XD:184:LYS:HE3	1.88	0.56
24:YA:581:C:H2'	24:YA:582:G:H8	1.71	0.56
24:YA:851:U:H2'	24:YA:852:G:H8	1.71	0.56
1:QA:739:C:O2'	15:QO:42:HIS:ND1	2.37	0.56
24:RA:856:C:O2'	24:RA:857:C:OP1	2.19	0.56
24:YA:310:A:O2'	24:YA:311:A:OP2	2.17	0.56
24:YA:1056:G:H4'	24:YA:1086:A:H8	1.70	0.56
24:YA:2701:C:H3'	24:YA:2702:U:C5'	2.32	0.56
22:XV:44:G:H2'	22:XV:45:G:C8	2.41	0.56
1:QA:376:G:H1	1:QA:387:U:H3	1.53	0.56
1:QA:401:C:O2'	1:QA:621:A:N3	2.36	0.56
24:RA:503:A:H4'	24:RA:504:U:H5'	1.88	0.56
2:XB:87:ARG:NH1	2:XB:220:ASP:OD1	2.36	0.56
14:XN:24:CYS:HB2	14:XN:28:GLY:H	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:301:G:OP2	43:RY:84:ARG:NH2	2.38	0.56
24:RA:558:G:H2'	24:RA:559:G:H8	1.71	0.56
24:RA:1869:G:H5'	24:RA:1870:C:OP2	2.05	0.56
1:XA:21:G:H2'	1:XA:22:G:C8	2.41	0.56
24:YA:259:G:O2'	24:YA:621:A:O2'	2.20	0.56
24:YA:665:C:H2'	24:YA:666:G:H8	1.70	0.56
1:QA:945:G:N2	1:QA:1334:G:O2'	2.38	0.55
7:QG:29:LYS:HE2	7:QG:105:VAL:HB	1.88	0.55
23:QX:6:C:H2'	23:QX:7:A:H8	1.71	0.55
24:RA:576:U:H2'	24:RA:577:G:C8	2.41	0.55
24:RA:1853:A:N3	24:RA:2233:U:O2'	2.35	0.55
1:XA:811:C:O2'	1:XA:901:A:N1	2.39	0.55
24:YA:2336:A:H61	45:Y0:43:THR:HG21	1.70	0.55
24:YA:2636:U:H3	24:YA:2782:G:H1	1.54	0.55
35:YQ:31:ASP:OD1	35:YQ:134:ARG:NH1	2.39	0.55
38:YT:132:LYS:O	38:YT:136:GLN:NE2	2.39	0.55
1:QA:114:U:H2'	1:QA:115:G:C8	2.41	0.55
1:QA:483:C:OP2	1:QA:484:G:O2'	2.17	0.55
1:QA:1124:G:H1'	10:QJ:38:ILE:HD13	1.88	0.55
24:RA:743:G:O2'	24:RA:1659:U:OP1	2.19	0.55
24:RA:1509:C:H3'	24:RA:1510:A:C5'	2.36	0.55
27:RE:104:VAL:HG22	27:RE:198:VAL:HG12	1.87	0.55
33:RO:107:ARG:NH1	38:RT:36:GLU:OE2	2.37	0.55
44:RZ:27:VAL:HG22	44:RZ:85:HIS:HE1	1.71	0.55
1:XA:662:G:H2'	1:XA:663:A:C8	2.40	0.55
8:XH:33:GLU:OE1	8:XH:50:ARG:NH1	2.38	0.55
24:YA:83:G:H1	24:YA:102:G:HO2'	1.53	0.55
1:QA:501:C:H2'	1:QA:502:G:H8	1.70	0.55
1:QA:958:A:N3	1:QA:985:C:O2'	2.33	0.55
1:QA:1071:C:H2'	1:QA:1072:G:H8	1.71	0.55
34:RP:52:GLU:OE2	53:R8:52:LYS:NZ	2.39	0.55
24:YA:24:G:O2'	41:YW:78:GLU:O	2.25	0.55
24:YA:251:A:OP1	53:Y8:7:HIS:NE2	2.37	0.55
26:YD:155:LEU:HD23	26:YD:177:LEU:HD11	1.87	0.55
1:QA:243:A:H4'	1:QA:244:U:O5'	2.06	0.55
8:QH:41:ARG:NH2	8:QH:123:GLU:OE2	2.40	0.55
24:RA:518:G:O5'	41:RW:18:ARG:NH1	2.39	0.55
24:RA:2010:G:H5"	41:RW:42:ARG:HB2	1.87	0.55
1:XA:152:A:H62	1:XA:169:C:H42	1.53	0.55
1:XA:316:G:OP2	1:XA:351:G:O2'	2.23	0.55
1:XA:946:A:H2'	1:XA:947:G:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1310:G:O2'	1:XA:1311:G:OP1	2.23	0.55
7:XG:5:ARG:HD3	7:XG:7:ALA:H	1.70	0.55
24:YA:679:C:H2'	24:YA:680:G:H8	1.71	0.55
24:YA:706:A:OP1	26:YD:7:LYS:NZ	2.29	0.55
24:YA:1639:U:H2'	24:YA:1640:C:H5"	1.89	0.55
36:YR:86:ARG:NH2	36:YR:118:GLU:OXT	2.40	0.55
50:Y5:36:CYS:O	50:Y5:37:LYS:HB3	2.06	0.55
1:QA:946:A:H2'	1:QA:947:G:C8	2.42	0.55
1:QA:1095:U:OP1	1:QA:1108:G:N2	2.32	0.55
1:QA:1104:G:H4'	2:QB:111:ARG:CZ	2.36	0.55
12:QL:60:LEU:HD12	12:QL:62:SER:H	1.71	0.55
13:QM:106:ASN:OD1	13:QM:106:ASN:N	2.37	0.55
24:RA:949:C:H2'	24:RA:950:G:H8	1.72	0.55
24:RA:1359:A:H62	24:RA:1372:U:H3	1.54	0.55
24:RA:1422:G:H1	24:RA:1576:U:H3	1.52	0.55
31:RI:54:GLN:OE1	31:RI:57:ARG:NH2	2.39	0.55
35:RQ:62:GLY:HA2	44:RZ:116:VAL:HG21	1.89	0.55
39:RU:91:ASP:O	39:RU:93:LYS:N	2.39	0.55
50:R5:46:CYS:SG	50:R5:49:CYS:N	2.78	0.55
24:YA:1971:A:OP2	26:YD:242:ARG:NH2	2.34	0.55
24:YA:2052:G:H4'	27:YE:143:ASN:O	2.06	0.55
24:YA:2809:A:H2'	24:YA:2810:A:C8	2.42	0.55
47:Y2:4:SER:OG	47:Y2:5:GLU:N	2.40	0.55
24:RA:1639:U:H2'	24:RA:1640:C:H5"	1.89	0.55
24:RA:2070:G:H2'	24:RA:2071:A:H8	1.72	0.55
9:XI:82:ALA:HB1	9:XI:102:LEU:HD22	1.88	0.55
24:YA:2124:G:H3'	24:YA:2125:G:H8	1.71	0.55
1:QA:581:G:O3'	15:QO:64:ARG:NH2	2.40	0.55
10:QJ:21:GLN:HA	10:QJ:24:VAL:HG12	1.89	0.55
24:RA:1359:A:N6	24:RA:1372:U:H3	2.05	0.55
24:RA:1804:C:N4	24:RA:1814:G:N2	2.55	0.55
24:RA:2030:A:H4'	24:RA:2031:A:C8	2.42	0.55
25:RB:44:G:O2'	25:RB:47:C:N4	2.38	0.55
33:RO:23:ARG:NH2	33:RO:28:SER:O	2.39	0.55
1:XA:359:U:H3'	1:XA:360:A:H8	1.72	0.55
23:XX:5:A:H2'	23:XX:6:G:H8	1.72	0.55
33:YO:43:VAL:HG23	33:YO:55:GLY:H	1.72	0.55
43:YY:79:CYS:HB3	43:YY:102:CYS:HB3	1.88	0.55
1:QA:126:G:OP1	1:QA:605:U:O2'	2.21	0.55
24:RA:182:A:N3	24:RA:433:C:O2'	2.37	0.55
24:RA:442:G:H1'	28:RF:48:THR:HG21	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1019:U:H3	24:RA:1142(A):A:H62	1.55	0.55
24:RA:2375:G:N2	24:RA:2378:A:OP2	2.36	0.55
1:XA:35:G:O2'	12:XL:118:SER:O	2.19	0.55
3:XC:6:HIS:HE1	3:XC:8:ILE:HB	1.72	0.55
7:XG:16:LEU:HD22	9:XI:44:VAL:HG13	1.89	0.55
18:XR:56:THR:HG23	18:XR:58:LEU:H	1.72	0.55
24:YA:431:U:H2'	24:YA:432:A:H8	1.72	0.55
24:YA:694:U:OP1	26:YD:59:LYS:NZ	2.34	0.55
24:YA:807:U:OP2	34:YP:41:ARG:NH1	2.40	0.55
1:XA:587:G:H22	1:XA:754:C:P	2.30	0.55
1:XA:1151:A:H2'	1:XA:1152:A:C8	2.42	0.55
1:QA:45:U:H2'	1:QA:46:G:C8	2.42	0.55
1:QA:742:G:OP2	15:QO:35:ARG:NH2	2.39	0.55
1:QA:985:C:H2'	1:QA:986:A:H8	1.70	0.55
3:QC:5:ILE:HD13	10:QJ:51:ARG:HH21	1.72	0.55
1:XA:410:G:H4'	1:XA:411:A:OP1	2.06	0.55
1:QA:545:C:H5'	4:QD:72:GLU:HG3	1.89	0.54
1:QA:1372:U:H5"	9:QI:71:SER:HB3	1.89	0.54
1:QA:1414:U:H2'	1:QA:1415:G:H8	1.73	0.54
2:QB:84:GLU:HB3	2:QB:219:VAL:HG21	1.88	0.54
24:RA:10:G:O2'	24:RA:2801:A:O2'	2.25	0.54
24:RA:2696:U:H2'	24:RA:2697:G:H8	1.72	0.54
3:XC:88:ARG:HA	3:XC:91:LEU:HD12	1.90	0.54
26:YD:50:THR:OG1	26:YD:51:VAL:N	2.40	0.54
24:RA:620:G:H4'	24:RA:621:A:H5"	1.89	0.54
24:RA:1780:A:O2'	24:RA:1781:C:O2	2.24	0.54
29:RG:63:ILE:HG22	29:RG:143:GLU:HB2	1.88	0.54
1:XA:902:G:H2'	1:XA:903:G:H8	1.73	0.54
11:XK:33:THR:HA	11:XK:39:PRO:HA	1.89	0.54
24:YA:676:A:H8	24:YA:2069:G:H21	1.53	0.54
24:YA:994:C:OP2	39:YU:54:LYS:NZ	2.33	0.54
24:YA:1316:U:H2'	24:YA:1317:A:C8	2.42	0.54
38:YT:50:ILE:HD11	38:YT:100:TYR:HA	1.89	0.54
43:YY:102:CYS:SG	43:YY:103:GLY:N	2.80	0.54
24:RA:74:A:H4'	24:RA:75:G:O5'	2.07	0.54
24:RA:1026:U:H4'	24:RA:1027:A:OP1	2.07	0.54
24:RA:1824:G:N3	26:RD:254:THR:OG1	2.40	0.54
4:XD:61:LYS:NZ	4:XD:61:LYS:CG	2.69	0.54
24:YA:1645:G:H5"	24:YA:1646:C:H5'	1.88	0.54
24:RA:2355:C:H4'	45:R0:24:LYS:HG3	1.89	0.54
38:RT:51:ARG:NH1	38:RT:100:TYR:OH	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:RZ:102:LEU:HD11	44:RZ:124:ILE:HG12	1.90	0.54
1:XA:1304:G:H21	1:XA:1333:A:H62	1.54	0.54
13:XM:3:ARG:HA	13:XM:9:ILE:HG21	1.89	0.54
24:YA:947:G:H2'	24:YA:948:G:H8	1.72	0.54
24:YA:958:U:OP2	35:YQ:14:ARG:NH1	2.41	0.54
32:YN:26:LEU:O	32:YN:30:ILE:HG12	2.08	0.54
33:YO:87:ILE:HD12	33:YO:91:LEU:HA	1.90	0.54
1:QA:1504:G:H4'	1:QA:1505:G:O5'	2.08	0.54
24:RA:566:U:H5"	34:RP:29:LYS:HE3	1.90	0.54
24:RA:589:C:H2'	24:RA:590:A:C8	2.43	0.54
24:RA:2304:G:H5'	29:RG:124:SER:OG	2.08	0.54
24:RA:2876:G:O2'	38:RT:3:ARG:NH1	2.40	0.54
26:RD:147:LEU:HD23	26:RD:148:GLU:HG3	1.89	0.54
50:R5:33:CYS:HB2	50:R5:40:LYS:HD3	1.87	0.54
1:XA:405:U:O4	4:XD:2:GLY:N	2.41	0.54
2:XB:47:THR:HG23	2:XB:202:PRO:HG2	1.89	0.54
4:XD:145:GLU:HG3	4:XD:184:LYS:HE2	1.88	0.54
7:XG:23:VAL:O	7:XG:27:ILE:HG12	2.08	0.54
24:YA:1062:G:H2'	24:YA:1063:G:C8	2.42	0.54
24:YA:1830:C:H2'	24:YA:1831:G:H8	1.72	0.54
35:YQ:81:VAL:O	35:YQ:82:ARG:NE	2.29	0.54
43:YY:1:MET:HG3	43:YY:2:ARG:H	1.72	0.54
1:QA:486:U:H2'	1:QA:487:A:H8	1.72	0.54
1:QA:1287:A:H2'	1:QA:1288:A:C8	2.43	0.54
24:RA:270(N):G:OP1	31:RI:57:ARG:NH1	2.36	0.54
24:RA:2420:C:H5'	51:R6:54:ILE:HD11	1.90	0.54
24:RA:2749:A:OP1	30:RH:4:ILE:HG23	2.08	0.54
34:RP:126:VAL:HG13	34:RP:147:LEU:HD21	1.89	0.54
4:XD:64:LEU:HA	4:XD:67:ILE:HD12	1.89	0.54
7:XG:72:ARG:HB3	7:XG:73:MET:HE2	1.90	0.54
9:XI:10:ARG:HD2	9:XI:105:ASP:HB2	1.89	0.54
24:YA:270(E):G:H1	24:YA:270(U):C:H42	1.54	0.54
24:YA:2627:G:O2'	24:YA:2781:A:N1	2.34	0.54
39:YU:29:SER:OG	39:YU:30:LYS:NZ	2.34	0.54
1:QA:1060:C:H2'	1:QA:1061:G:H8	1.72	0.54
1:QA:1346:A:H5"	9:QI:120:ARG:HH12	1.73	0.54
24:RA:2133:G:H1'	24:RA:2158:A:H61	1.72	0.54
34:RP:47:ASP:OD2	53:R8:59:LYS:NZ	2.41	0.54
44:RZ:145:GLU:HG3	44:RZ:146:ILE:HG12	1.89	0.54
1:XA:1085:U:OP1	1:XA:1094:G:N2	2.41	0.54
1:XA:1287:A:H2'	1:XA:1288:A:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:XE:33:VAL:HG23	5:XE:112:LEU:HD22	1.89	0.54
8:XH:21:LYS:HD3	8:XH:24:THR:HG22	1.90	0.54
24:YA:1338:G:N7	42:YX:62:LYS:NZ	2.49	0.54
24:YA:2795:G:N2	24:YA:2799:A:OP2	2.41	0.54
1:QA:1451:A:H5"	1:QA:1452:C:H5'	1.89	0.54
13:QM:17:VAL:HA	13:QM:20:THR:HG23	1.90	0.54
20:QT:85:MET:HA	20:QT:88:VAL:HG22	1.89	0.54
24:RA:270(S):G:H2'	24:RA:270(T):G:H8	1.72	0.54
24:RA:466:A:OP1	52:R7:34:ARG:NH1	2.40	0.54
24:RA:605:C:O2	24:RA:657:U:O2'	2.26	0.54
24:RA:675:A:N3	24:RA:2443:C:O2'	2.37	0.54
24:RA:1341:U:OP1	24:RA:1397:U:N3	2.36	0.54
24:RA:1818:U:H2'	26:RD:157:ARG:HG2	1.90	0.54
24:RA:2022:U:OP2	50:R5:15:ARG:NH2	2.41	0.54
24:RA:2137:C:H42	24:RA:2154:G:H1	1.56	0.54
30:RH:101:ARG:HE	30:RH:117:PRO:HG2	1.73	0.54
1:XA:718:G:O6	18:XR:74:ARG:NH1	2.40	0.54
24:YA:1022:G:O2'	24:YA:1023:U:OP2	2.22	0.54
24:YA:1105:U:H2'	24:YA:1106:G:H8	1.72	0.54
24:YA:1231:G:H2'	24:YA:1232:G:H8	1.73	0.54
24:YA:2882:A:OP1	36:YR:96:ARG:NH1	2.36	0.54
1:QA:165:C:H2'	1:QA:166:G:H8	1.73	0.54
1:QA:410:G:H4'	1:QA:411:A:OP1	2.07	0.54
1:QA:736:C:H2'	1:QA:737:A:C8	2.43	0.54
1:QA:831:U:H3	1:QA:855:G:H1	1.56	0.54
1:QA:833:U:H3	1:QA:853:G:H1	1.56	0.54
14:QN:21:TYR:OH	14:QN:23:ARG:NH2	2.39	0.54
18:QR:74:ARG:HD3	18:QR:81:PHE:HA	1.90	0.54
24:RA:1085:A:H2'	24:RA:1086:A:C4	2.43	0.54
24:RA:2539:C:H5'	54:R9:3:VAL:HG21	1.89	0.54
5:XE:37:ARG:NH1	5:XE:111:GLU:O	2.41	0.54
24:YA:581:C:H2'	24:YA:582:G:C8	2.43	0.54
24:YA:1062:G:H22	24:YA:1078:U:H1'	1.72	0.54
24:YA:2469:A:H2	24:YA:2481:G:H21	1.56	0.54
1:QA:501:C:H1'	1:QA:549:C:H1'	1.90	0.54
1:QA:1412:C:H2'	1:QA:1413:A:C8	2.43	0.54
1:QA:1510:U:H2'	1:QA:1511:G:C8	2.42	0.54
24:RA:184:C:O2'	24:RA:217:G:N3	2.41	0.54
32:RN:133:GLN:HG3	32:RN:135:PRO:HD3	1.89	0.54
44:RZ:7:ALA:HB2	44:RZ:59:LEU:HB3	1.90	0.54
1:XA:436:C:H1'	4:XD:157:LEU:HD22	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:581:G:OP1	15:XO:65:ARG:NH1	2.37	0.54
13:XM:17:VAL:O	13:XM:20:THR:OG1	2.22	0.54
24:YA:309:G:N3	24:YA:329:G:O2'	2.41	0.54
24:YA:964:C:O2'	24:YA:2273:A:N3	2.36	0.54
24:YA:1537:C:H2'	24:YA:1538:G:C8	2.42	0.54
1:QA:642:A:N3	8:QH:113:SER:OG	2.40	0.53
6:QF:99:ALA:HB1	18:QR:23:LYS:HE3	1.90	0.53
24:RA:459:U:H2'	24:RA:460:A:H8	1.73	0.53
24:RA:579:G:O2'	24:RA:2019:A:OP1	2.22	0.53
27:RE:50:GLY:HA2	27:RE:77:ILE:HA	1.90	0.53
50:R5:41:PRO:O	50:R5:44:THR:OG1	2.25	0.53
1:XA:410:G:N2	1:XA:432:A:H62	2.05	0.53
24:YA:2233:U:H2'	24:YA:2234:G:C8	2.43	0.53
35:YQ:66:ILE:HA	35:YQ:104:PHE:HA	1.90	0.53
1:QA:1342:C:H2'	1:QA:1343:G:C8	2.44	0.53
11:QK:22:HIS:HB3	11:QK:29:ILE:HG13	1.90	0.53
13:QM:23:TYR:HE2	13:QM:70:LEU:HB2	1.72	0.53
22:QV:20:G:H5'	22:QV:21:U:H5	1.73	0.53
24:RA:138:G:N2	42:RX:44:GLU:OE1	2.37	0.53
24:RA:307:G:H3'	24:RA:307:G:C8	2.43	0.53
24:RA:848:G:H2'	24:RA:849:A:C8	2.43	0.53
24:RA:861:A:N3	25:RB:79:C:O2'	2.40	0.53
24:RA:1035:U:H2'	24:RA:1036:G:C8	2.43	0.53
24:RA:1972:A:H2'	24:RA:1973:G:H8	1.72	0.53
37:RS:27:SER:HB3	37:RS:38:GLN:HB3	1.88	0.53
1:XA:79:G:H1	1:XA:90:C:H42	1.56	0.53
1:XA:376:G:H5"	16:XP:5:ARG:HB2	1.90	0.53
1:XA:1342:C:H2'	1:XA:1343:G:C8	2.44	0.53
4:XD:139:ARG:NH1	4:XD:140:VAL:O	2.41	0.53
24:YA:1006:C:H5'	32:YN:28:THR:HG23	1.91	0.53
24:YA:1996:C:OP1	33:YO:31:LYS:NZ	2.41	0.53
44:YZ:72:ARG:NH2	44:YZ:97:GLU:O	2.30	0.53
1:QA:21:G:H2'	1:QA:22:G:C8	2.43	0.53
1:QA:368:U:OP1	31:YI:91:SER:OG	2.23	0.53
1:QA:1010:G:H2'	1:QA:1011:G:H8	1.72	0.53
1:QA:1371:G:OP1	9:QI:11:LYS:NZ	2.41	0.53
24:RA:575:A:OP2	24:RA:2499:C:O2'	2.27	0.53
44:RZ:128:VAL:HG12	44:RZ:129:SER:H	1.74	0.53
1:XA:356:A:N3	1:XA:368:U:O2'	2.32	0.53
24:YA:631:A:OP2	53:Y8:46:ARG:NH2	2.41	0.53
1:QA:137:C:H2'	1:QA:138:G:H8	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:410:G:H21	1:QA:432:A:H62	1.54	0.53
24:RA:177:G:H5'	24:RA:178:G:C8	2.43	0.53
24:RA:822:U:H2'	24:RA:823:G:H8	1.72	0.53
24:RA:1012:U:OP1	39:RU:75:ASN:ND2	2.38	0.53
24:RA:1315:C:O2'	24:RA:1392:A:N3	2.35	0.53
24:RA:1542:G:O6	24:RA:1543:A:N6	2.42	0.53
24:RA:2031:A:N3	24:RA:2455:G:O2'	2.37	0.53
38:RT:24:PRO:HG3	38:RT:52:ILE:HG22	1.90	0.53
1:XA:34:C:H2'	1:XA:35:G:C8	2.44	0.53
1:XA:711:G:H2'	1:XA:712:A:H8	1.74	0.53
9:XI:63:ILE:HG21	9:XI:77:ILE:HD12	1.91	0.53
24:YA:2070:G:H2'	24:YA:2071:A:C8	2.44	0.53
24:YA:2638:G:OP1	27:YE:82:ARG:NH2	2.42	0.53
24:YA:2683:C:OP1	38:YT:53:ARG:NH2	2.33	0.53
27:YE:36:ARG:NH1	27:YE:85:ASN:OD1	2.40	0.53
3:QC:19:GLU:O	3:QC:40:ARG:NH2	2.41	0.53
10:QJ:78:ASN:O	10:QJ:81:THR:OG1	2.25	0.53
26:RD:72:LYS:HD2	26:RD:75:ILE:HD12	1.90	0.53
47:R2:4:SER:OG	47:R2:5:GLU:N	2.41	0.53
1:XA:324:G:P	20:XT:22:ARG:HE	2.31	0.53
1:XA:452:A:N6	1:XA:480:U:H3	1.97	0.53
5:XE:103:GLY:O	5:XE:106:PRO:HD2	2.08	0.53
8:XH:29:SER:HB3	8:XH:32:LYS:HD2	1.90	0.53
24:YA:1124:C:O2	54:Y9:36:GLN:NE2	2.41	0.53
1:QA:509:A:H4'	1:QA:510:A:OP1	2.07	0.53
24:RA:783:A:H8	24:RA:784:A:H4'	1.73	0.53
24:RA:2329:G:H2'	24:RA:2330:G:C8	2.44	0.53
33:RO:15:GLY:HA2	33:RO:47:ILE:HG12	1.90	0.53
50:R5:56:LYS:NZ	50:R5:59:GLU:OE1	2.41	0.53
1:XA:624:C:H2'	1:XA:625:G:H8	1.72	0.53
8:XH:21:LYS:O	8:XH:65:TYR:OH	2.25	0.53
24:YA:300:A:OP1	43:YY:86:ARG:NH2	2.41	0.53
24:YA:947:G:H2'	24:YA:948:G:C8	2.44	0.53
29:YG:161:THR:HG22	29:YG:163:ALA:H	1.74	0.53
1:QA:300:A:O2'	1:QA:564:C:N3	2.41	0.53
1:QA:324:G:N1	1:QA:327:A:OP2	2.41	0.53
1:QA:689:C:OP2	11:QK:55:LYS:NZ	2.38	0.53
1:QA:982:U:O2	1:QA:1222:G:N1	2.40	0.53
11:QK:34:ASP:OD1	11:QK:38:ASN:N	2.42	0.53
24:RA:1657:C:C3'	27:RE:133:LYS:HG2	2.38	0.53
24:RA:2081:C:H2'	24:RA:2082:A:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2859:G:H2'	24:RA:2860:A:C8	2.44	0.53
1:XA:266:G:O2'	1:XA:267:C:OP2	2.23	0.53
1:XA:359:U:C6	1:XA:359:U:O5'	2.62	0.53
1:XA:692:U:OP1	11:XK:124:LYS:NZ	2.31	0.53
24:YA:521:G:H2'	24:YA:522:G:H8	1.74	0.53
24:YA:1155:A:O3'	39:YU:55:ARG:NH1	2.41	0.53
24:YA:2528:U:O2'	24:YA:2530:A:OP1	2.21	0.53
37:YS:14:VAL:O	37:YS:18:ILE:HG12	2.09	0.53
1:QA:45:U:H2'	1:QA:46:G:H8	1.73	0.53
1:QA:1227:A:N3	19:QS:83:HIS:ND1	2.57	0.53
24:RA:512:G:H4'	24:RA:513:A:O5'	2.09	0.53
24:RA:919:G:N2	24:RA:2269:A:OP2	2.41	0.53
24:RA:1230:C:H2'	24:RA:1231:G:H8	1.74	0.53
24:RA:1266:G:O2'	24:RA:2012:G:O6	2.22	0.53
24:RA:1360:A:H62	24:RA:1371:G:H21	1.57	0.53
26:RD:136:ILE:O	26:RD:168:ARG:NH2	2.41	0.53
1:XA:189:U:O2	17:XQ:63:ARG:NH2	2.42	0.53
1:XA:1129:C:N4	1:XA:1135:U:O4	2.42	0.53
18:XR:67:ALA:HA	18:XR:70:ILE:HD12	1.91	0.53
24:YA:743:G:O2'	24:YA:1659:U:OP1	2.22	0.53
35:YQ:77:LYS:NZ	35:YQ:83:MET:O	2.42	0.53
1:QA:99:C:H2'	1:QA:101:A:C8	2.42	0.53
1:QA:345:C:H3'	38:RT:41:ARG:HH12	1.72	0.53
24:RA:391:G:O2'	24:RA:410:G:OP1	2.25	0.53
24:RA:679:C:H2'	24:RA:680:G:H8	1.73	0.53
24:RA:1061:U:H5"	24:RA:1070:A:H1'	1.90	0.53
24:RA:1485:G:H1	24:RA:1504:C:H42	1.57	0.53
28:RF:124:LEU:HD12	28:RF:191:ARG:HH21	1.73	0.53
29:RG:161:THR:HG22	29:RG:163:ALA:H	1.74	0.53
1:XA:64:G:H5"	1:XA:65:U:OP1	2.09	0.53
24:YA:387:U:OP1	46:Y1:20:ARG:NH1	2.35	0.53
24:YA:840:C:H2'	24:YA:841:A:C8	2.44	0.53
24:YA:1062:G:H2'	24:YA:1063:G:H8	1.74	0.53
24:YA:1802:A:H2'	24:YA:1803:A:C8	2.43	0.53
24:YA:2030:A:H4'	24:YA:2031:A:C8	2.44	0.53
27:YE:18:ASP:HB3	38:YT:82:LEU:HD21	1.91	0.53
1:QA:1064:G:H1'	1:QA:1066:C:C6	2.44	0.53
1:QA:1252:A:H61	1:QA:1285:A:H61	1.55	0.53
24:RA:1403:C:H5"	24:RA:1471:A:H1'	1.91	0.53
24:RA:1697:G:OP2	24:RA:1698:A:O2'	2.25	0.53
24:RA:2006:C:O2'	24:RA:2823:A:N3	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2352:A:N6	24:RA:2365:G:O2'	2.42	0.53
24:RA:2515:C:H2'	24:RA:2516:G:H8	1.74	0.53
34:RP:100:LEU:HB2	34:RP:106:LEU:HG	1.90	0.53
1:XA:263:A:OP2	20:XT:79:ARG:NH1	2.42	0.53
1:XA:407:G:H2'	1:XA:408:A:H8	1.73	0.53
1:XA:1235:U:H5"	21:XU:3:LYS:HD2	1.90	0.53
3:XC:121:ALA:O	3:XC:125:GLU:HG3	2.09	0.53
7:XG:116:ALA:HA	7:XG:119:ARG:HE	1.74	0.53
9:XI:13:ALA:HB2	9:XI:68:GLY:HA3	1.91	0.53
24:YA:252:G:OP2	34:YP:50:ARG:NH1	2.41	0.53
24:YA:442:G:H1'	28:YF:48:THR:HG21	1.91	0.53
1:QA:152:A:H62	1:QA:169:C:H42	1.57	0.52
1:QA:152:A:H62	1:QA:169:C:N4	2.07	0.52
1:QA:181:G:O2'	1:QA:182:U:O5'	2.27	0.52
1:QA:352:C:O2'	1:QA:354:G:OP1	2.20	0.52
1:QA:1479:C:H2'	1:QA:1480:G:H8	1.74	0.52
24:RA:380:U:H2'	24:RA:381:G:H8	1.73	0.52
24:RA:2729:G:H1'	27:RE:187:ALA:HB2	1.89	0.52
29:RG:71:THR:N	29:RG:89:GLY:O	2.41	0.52
1:XA:770:C:H2'	1:XA:771:G:H8	1.74	0.52
8:XH:32:LYS:HA	8:XH:35:ILE:HD12	1.90	0.52
10:XJ:62:HIS:HD1	14:XN:59:ALA:HB3	1.74	0.52
24:YA:439:G:H2'	24:YA:440:G:H8	1.75	0.52
24:YA:881:G:H3'	24:YA:882:G:C8	2.44	0.52
24:YA:949:C:H2'	24:YA:950:G:H8	1.74	0.52
40:YV:60:GLU:OE1	40:YV:97:LYS:NZ	2.42	0.52
3:QC:78:GLY:HA3	3:QC:83:ARG:HB2	1.92	0.52
24:RA:589:C:H2'	24:RA:590:A:H8	1.72	0.52
24:RA:859:G:N2	24:RA:917:A:OP2	2.35	0.52
24:RA:1152:C:H2'	24:RA:1153:C:C6	2.44	0.52
24:RA:1358:G:N1	24:RA:1372:U:OP2	2.35	0.52
35:RQ:27:VAL:HG11	35:RQ:134:ARG:HA	1.90	0.52
39:RU:58:ARG:O	39:RU:62:ILE:HG12	2.09	0.52
44:RZ:123:ASP:OD1	44:RZ:123:ASP:N	2.42	0.52
24:YA:2379:G:HO2'	37:YS:17:ARG:HH12	1.55	0.52
43:YY:39:VAL:HG13	43:YY:42:VAL:HB	1.90	0.52
24:RA:1405:U:H2'	24:RA:1406:U:H6	1.75	0.52
24:RA:2630:G:H2'	24:RA:2631:G:H8	1.73	0.52
30:RH:164:TYR:HB2	30:RH:167:GLU:HB2	1.90	0.52
34:RP:49:ARG:HH11	53:R8:58:ILE:HG22	1.73	0.52
38:RT:5:ALA:HA	38:RT:8:LYS:HD3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1446:A:HO2'	1:XA:1447:G:P	2.32	0.52
14:XN:24:CYS:HB2	14:XN:29:ARG:H	1.75	0.52
24:YA:436:C:H2'	24:YA:438:G:H8	1.74	0.52
24:YA:956:G:N2	24:YA:960:A:OP2	2.42	0.52
24:YA:2345:G:H5'	24:YA:2347:C:O4'	2.10	0.52
1:QA:22:G:H2'	1:QA:23:C:C6	2.45	0.52
1:QA:624:C:H2'	1:QA:625:G:H8	1.74	0.52
1:QA:817:C:O2'	1:QA:1527:C:H5'	2.08	0.52
9:QI:24:GLY:N	9:QI:60:ASP:OD1	2.40	0.52
24:RA:1479:G:OP2	24:RA:1510:A:N6	2.41	0.52
24:RA:2037:G:H2'	24:RA:2038:G:C8	2.45	0.52
24:RA:2392:A:OP2	24:RA:2422:A:N6	2.42	0.52
37:RS:14:VAL:O	37:RS:18:ILE:HG12	2.09	0.52
41:RW:92:ARG:HH21	41:RW:94:ASP:HA	1.73	0.52
1:XA:224:C:H2'	1:XA:225:C:C6	2.44	0.52
4:XD:61:LYS:NZ	4:XD:72:GLU:OE2	2.22	0.52
4:XD:127:THR:HA	4:XD:132:ARG:HA	1.92	0.52
24:YA:414:C:H2'	24:YA:415:A:C8	2.44	0.52
24:YA:863:A:H2'	24:YA:864:G:H8	1.74	0.52
24:YA:1506:C:H2'	24:YA:1507:A:H5"	1.90	0.52
24:YA:1593:G:H2'	24:YA:1594:G:C8	2.45	0.52
24:YA:2032:G:OP2	24:YA:2454:G:O2'	2.26	0.52
24:YA:2700:C:O2'	24:YA:2701:C:H5'	2.09	0.52
30:YH:164:TYR:HB2	30:YH:167:GLU:HB2	1.91	0.52
44:YZ:4:ARG:HH11	44:YZ:60:GLU:HG2	1.75	0.52
44:YZ:166:SER:HB3	44:YZ:168:GLU:N	2.25	0.52
1:QA:946:A:O2'	1:QA:1333:A:N3	2.39	0.52
2:QB:47:THR:O	2:QB:51:LEU:HG	2.09	0.52
5:QE:81:GLU:HG2	5:QE:90:VAL:HG23	1.90	0.52
24:RA:219:G:N3	24:RA:234:C:O2'	2.42	0.52
24:RA:2683:C:OP1	38:RT:53:ARG:NH2	2.36	0.52
36:RR:56:LYS:NZ	36:RR:90:ARG:O	2.43	0.52
20:XT:83:ARG:O	20:XT:87:LYS:HG3	2.10	0.52
24:YA:2181:G:H2'	24:YA:2182:G:C8	2.44	0.52
26:YD:168:ARG:HG2	26:YD:173:VAL:HG12	1.91	0.52
30:YH:4:ILE:HB	30:YH:6:ARG:HH11	1.74	0.52
34:YP:135:LEU:HG	34:YP:139:LYS:HE2	1.92	0.52
35:YQ:75:THR:HG21	35:YQ:85:LYS:HE3	1.91	0.52
1:QA:28:G:O2'	1:QA:296:U:OP1	2.26	0.52
1:QA:1129:C:H5'	1:QA:1130:A:H5'	1.92	0.52
1:QA:1386:G:H2'	1:QA:1387:G:H8	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:QD:74:GLN:O	4:QD:78:LEU:HG	2.10	0.52
25:RB:52:A:H2	25:RB:53:A:H62	1.57	0.52
27:RE:45:THR:O	27:RE:83:ASP:N	2.41	0.52
1:XA:45:U:H2'	1:XA:46:G:C8	2.44	0.52
1:XA:565:U:OP2	1:XA:566:G:O2'	2.19	0.52
1:XA:573:A:N3	1:XA:883:C:O2'	2.38	0.52
1:XA:701:C:O2	1:XA:703:G:N1	2.43	0.52
8:XH:7:ALA:HB2	8:XH:85:ARG:HD3	1.90	0.52
13:XM:65:LYS:HD3	13:XM:69:GLU:HG3	1.92	0.52
24:YA:1422:G:H1	24:YA:1576:U:H3	1.58	0.52
24:YA:1636:C:H2'	24:YA:1637:A:C8	2.44	0.52
24:YA:2500:U:O2'	24:YA:2504:U:OP1	2.26	0.52
1:QA:119:A:H4'	1:QA:120:A:O5'	2.09	0.52
1:QA:986:A:N3	19:QS:52:TYR:OH	2.35	0.52
1:QA:1002:G:H2'	1:QA:1003:G:H8	1.75	0.52
1:QA:1071:C:H5"	5:QE:49:PRO:HG2	1.92	0.52
1:QA:1159:U:O2'	1:QA:1160:G:N7	2.40	0.52
7:QG:24:THR:HA	7:QG:27:ILE:HG12	1.91	0.52
8:QH:19:VAL:HG13	8:QH:21:LYS:HG3	1.91	0.52
9:QI:104:ARG:NH1	9:QI:105:ASP:O	2.43	0.52
47:R2:45:SER:O	47:R2:46:GLN:NE2	2.43	0.52
1:XA:1071:C:H2'	1:XA:1072:G:H8	1.75	0.52
1:XA:1172:C:H2'	1:XA:1173:G:H8	1.74	0.52
1:XA:1408:A:C6	1:XA:1494:G:C6	2.98	0.52
24:YA:2291:U:H2'	24:YA:2292:C:C6	2.45	0.52
30:YH:8:PRO:HG2	30:YH:69:ARG:HE	1.74	0.52
30:YH:153:LYS:HB3	30:YH:161:GLY:HA2	1.92	0.52
44:YZ:163:LEU:HD22	44:YZ:167:PRO:HG3	1.92	0.52
49:Y4:62:ARG:HD3	49:Y4:63:TYR:H	1.75	0.52
1:QA:825:G:O2'	8:QH:12:ARG:NH2	2.40	0.52
1:QA:1036:G:N7	1:QA:1037:C:N4	2.58	0.52
2:QB:219:VAL:HA	2:QB:222:ILE:HD12	1.92	0.52
19:QS:40:ILE:HG13	19:QS:44:MET:HE3	1.92	0.52
20:QT:21:LYS:O	20:QT:25:ARG:HG3	2.10	0.52
24:RA:265:A:N6	24:RA:427:U:O2'	2.43	0.52
24:RA:2329:G:H2'	24:RA:2330:G:H8	1.74	0.52
24:RA:2626:C:H2'	24:RA:2627:G:C8	2.45	0.52
29:RG:9:ARG:O	29:RG:13:GLU:HG3	2.09	0.52
10:XJ:46:ARG:HA	10:XJ:64:GLU:HA	1.91	0.52
24:YA:2344:U:OP1	51:Y6:37:ARG:HD3	2.10	0.52
24:YA:2401:U:OP1	51:Y6:18:ARG:NH2	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2805:G:H2'	24:YA:2807:G:C8	2.45	0.52
26:YD:27:THR:HG21	26:YD:81:ALA:HB1	1.91	0.52
29:YG:81:LYS:HD3	29:YG:86:MET:HE1	1.92	0.52
1:QA:628:G:H2'	1:QA:629:G:C8	2.45	0.52
11:QK:122:LYS:HD3	11:QK:124:LYS:H	1.75	0.52
24:RA:222:A:H62	24:RA:232:G:H21	1.57	0.52
24:RA:411:G:OP2	24:RA:2406:U:O2'	2.17	0.52
24:RA:654(A):G:H1	24:RA:654(T):C:H42	1.56	0.52
24:RA:1035:U:O3'	30:RH:59:ARG:NH1	2.42	0.52
24:RA:1354:A:H3'	24:RA:1355:G:H8	1.75	0.52
24:RA:2443:C:H2'	24:RA:2444:G:C8	2.45	0.52
37:RS:20:ARG:NH1	45:R0:48:GLY:O	2.43	0.52
1:XA:21:G:H2'	1:XA:22:G:H8	1.75	0.52
1:XA:1288:A:O3'	21:XU:10:ARG:NH1	2.43	0.52
1:XA:1299:A:C8	1:XA:1301:U:H1'	2.45	0.52
1:XA:1414:U:H2'	1:XA:1415:G:C8	2.45	0.52
9:XI:53:VAL:HA	9:XI:95:LYS:HE3	1.92	0.52
24:YA:253:C:OP2	53:Y8:5:LYS:NZ	2.32	0.52
24:YA:1491:G:H2'	24:YA:1492:G:H8	1.73	0.52
1:QA:444:C:H2'	1:QA:445:G:H8	1.75	0.52
1:QA:954:G:O6	13:QM:104:ARG:NH1	2.42	0.52
1:QA:1119:C:H2'	1:QA:1120:G:C8	2.45	0.52
2:QB:47:THR:HA	2:QB:202:PRO:HG2	1.92	0.52
4:QD:163:GLU:HA	4:QD:166:LYS:HE3	1.92	0.52
24:RA:818:G:N1	24:RA:1188:U:OP2	2.27	0.52
27:RE:12:THR:OG1	27:RE:13:ARG:N	2.42	0.52
29:RG:37:VAL:HG12	29:RG:99:MET:HE3	1.90	0.52
29:RG:41:GLN:HB3	29:RG:90:LEU:HB2	1.92	0.52
29:RG:67:LYS:HD2	49:R4:5:ILE:HD12	1.91	0.52
1:XA:243:A:H4'	1:XA:244:U:H3'	1.91	0.52
1:XA:452:A:O2'	16:XP:72:ARG:NH1	2.43	0.52
1:XA:1264:C:H2'	1:XA:1265:G:C8	2.45	0.52
5:XE:35:GLY:HA3	5:XE:112:LEU:HB3	1.91	0.52
24:YA:847:U:H5"	24:YA:847:U:H6	1.75	0.52
24:YA:2228:G:OP1	26:YD:261:LYS:NZ	2.28	0.52
26:YD:13:ARG:HA	26:YD:16:MET:HB2	1.92	0.52
32:YN:133:GLN:HG2	32:YN:135:PRO:HD3	1.92	0.52
33:YO:2:ILE:HB	33:YO:33:ALA:HB3	1.92	0.52
1:QA:985:C:H2'	1:QA:986:A:C8	2.45	0.51
9:QI:63:ILE:HG21	9:QI:77:ILE:HD12	1.93	0.51
15:QO:87:ILE:HG22	15:QO:88:ARG:H	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:QQ:21:VAL:HG11	17:QQ:59:ILE:HG13	1.91	0.51
24:RA:581:C:H2'	24:RA:582:G:H8	1.74	0.51
24:RA:1316:U:H2'	24:RA:1317:A:H8	1.75	0.51
24:RA:1399:C:H2'	24:RA:1400:G:H8	1.75	0.51
26:RD:17:THR:O	26:RD:211:ARG:NH1	2.40	0.51
30:RH:138:LYS:HA	30:RH:141:VAL:HG22	1.91	0.51
1:XA:128:G:O2'	17:XQ:3:LYS:NZ	2.44	0.51
1:XA:250:A:H4'	1:XA:251:G:O5'	2.09	0.51
1:XA:642:A:N3	8:XH:113:SER:OG	2.41	0.51
10:XJ:77:PRO:HB2	10:XJ:79:ARG:HH22	1.74	0.51
24:YA:679:C:H2'	24:YA:680:G:C8	2.44	0.51
24:YA:1417:C:H2'	24:YA:1418:G:O4'	2.10	0.51
25:YB:43:C:O3'	29:YG:98:ARG:NH2	2.39	0.51
33:YO:24:VAL:HA	33:YO:39:ILE:HG22	1.92	0.51
1:QA:599:C:O2'	8:QH:129:VAL:O	2.23	0.51
1:QA:946:A:H2'	1:QA:947:G:H8	1.73	0.51
1:QA:1179:A:H5'	9:QI:83:ARG:HH21	1.75	0.51
19:QS:51:VAL:O	19:QS:57:HIS:HA	2.10	0.51
24:RA:220:G:O2'	24:RA:233:A:N3	2.42	0.51
26:RD:17:THR:HB	26:RD:205:VAL:H	1.74	0.51
29:RG:15:VAL:HG13	29:RG:175:LEU:HB2	1.91	0.51
36:RR:86:ARG:NH2	36:RR:118:GLU:OXT	2.43	0.51
1:XA:377:G:H2'	1:XA:378:G:H8	1.75	0.51
1:XA:529:G:O6	12:XL:49:ASN:ND2	2.43	0.51
1:XA:562:C:H1'	12:XL:15:ARG:HD2	1.92	0.51
1:XA:1441:G:H21	1:XA:1460:A:N6	2.05	0.51
15:XO:39:LEU:HD23	15:XO:56:LEU:HB2	1.92	0.51
24:YA:675:A:OP1	28:YF:63:LYS:NZ	2.35	0.51
24:YA:1005:C:O2'	32:YN:28:THR:HG21	2.09	0.51
24:YA:1166:C:H2'	24:YA:1167:U:C6	2.45	0.51
24:YA:2327:A:H2'	24:YA:2328:A:C8	2.46	0.51
24:YA:2352:A:N6	24:YA:2365:G:O2'	2.44	0.51
49:Y4:57:GLU:HG3	49:Y4:61:ARG:HG3	1.92	0.51
1:QA:663:A:H5"	18:QR:61:LYS:HE2	1.92	0.51
1:QA:1013:G:N2	1:QA:1016:A:OP2	2.36	0.51
1:QA:1065:U:O2'	1:QA:1066:C:OP2	2.23	0.51
24:RA:309:G:OP2	24:RA:309:G:H8	1.93	0.51
24:RA:783:A:H2'	24:RA:784:A:H4'	1.91	0.51
24:RA:1417:C:H2'	24:RA:1418:G:O4'	2.10	0.51
24:RA:2636:U:OP1	27:RE:80:GLU:N	2.32	0.51
35:RQ:66:ILE:HA	35:RQ:104:PHE:HA	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:RV:51:VAL:HG22	40:RV:53:GLU:H	1.75	0.51
44:RZ:91:LEU:HD12	44:RZ:130:PRO:HB3	1.92	0.51
50:R5:16:ARG:NH1	50:R5:17:ASP:OD1	2.43	0.51
1:XA:35:G:H5'	12:XL:104:VAL:CG2	2.41	0.51
1:XA:1391:U:H2'	1:XA:1392:G:C8	2.45	0.51
1:XA:1513:A:H2'	1:XA:1514:C:C6	2.45	0.51
7:XG:20:ASP:HB3	7:XG:23:VAL:HG12	1.92	0.51
24:YA:1224:G:OP2	40:YV:66:ARG:NH1	2.41	0.51
28:YF:65:TRP:NE1	28:YF:73:ALA:O	2.37	0.51
29:YG:142:PRO:HB2	49:Y4:31:ILE:HG21	1.93	0.51
38:YT:3:ARG:HB2	38:YT:6:LEU:HB2	1.92	0.51
6:QF:30:LEU:HD23	6:QF:75:LEU:HD11	1.92	0.51
24:RA:1316:U:H2'	24:RA:1317:A:C8	2.46	0.51
24:RA:2387:U:O2'	45:R0:19:LYS:NZ	2.44	0.51
29:RG:136:ARG:HH11	29:RG:137:GLU:HG2	1.76	0.51
40:RV:66:ARG:HH12	40:RV:88:ARG:HD3	1.75	0.51
46:R1:83:GLU:HG2	46:R1:85:LEU:H	1.73	0.51
1:XA:539:A:H2'	1:XA:540:G:C8	2.46	0.51
2:XB:96:ARG:HH11	2:XB:98:LEU:HA	1.75	0.51
24:YA:380:U:H2'	24:YA:381:G:C8	2.45	0.51
24:YA:503:A:H4'	24:YA:504:U:H5'	1.93	0.51
24:YA:1510:A:O2'	24:YA:1512:G:N7	2.40	0.51
24:YA:2096:U:O4	24:YA:2193:G:O6	2.28	0.51
24:YA:2102:U:H2'	24:YA:2103:C:C6	2.46	0.51
27:YE:48:GLN:OE1	27:YE:64:LYS:NZ	2.42	0.51
36:YR:24:GLN:HE22	36:YR:40:LYS:HB3	1.76	0.51
24:RA:949:C:H2'	24:RA:950:G:C8	2.46	0.51
24:RA:2126:A:H4'	24:RA:2127:G:O5'	2.11	0.51
24:RA:2564:A:OP1	24:RA:2648:C:H4'	2.11	0.51
30:RH:39:PRO:O	30:RH:42:ARG:NH2	2.36	0.51
42:RX:27:THR:HB	42:RX:80:ILE:HG12	1.93	0.51
1:XA:73:G:H1	1:XA:97:U:H3	1.58	0.51
1:XA:352:C:O2'	1:XA:354:G:OP1	2.20	0.51
20:XT:53:LEU:HA	20:XT:56:MET:HG2	1.93	0.51
24:YA:303:U:H2'	24:YA:304:G:H8	1.75	0.51
24:YA:2108:C:O2	24:YA:2181:G:N2	2.32	0.51
25:YB:15:A:H5'	25:YB:16:G:C8	2.45	0.51
35:YQ:30:GLY:HA2	35:YQ:107:ALA:HB2	1.91	0.51
1:QA:1527:C:H2'	1:QA:1528:U:C6	2.46	0.51
3:QC:10:PHE:HD1	3:QC:11:ARG:HD2	1.75	0.51
12:QL:113:ARG:HH21	12:QL:116:SER:HB2	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:962:G:H2'	24:RA:963:U:C6	2.45	0.51
24:RA:2052:G:H4'	27:RE:143:ASN:O	2.11	0.51
24:RA:2070:G:H2'	24:RA:2071:A:C8	2.46	0.51
34:RP:52:GLU:HB2	34:RP:57:THR:HG22	1.92	0.51
1:XA:123:C:OP1	1:XA:311:C:O2'	2.28	0.51
1:XA:671:G:O2'	6:XF:80:ARG:NH1	2.41	0.51
1:XA:877:C:H2'	1:XA:878:G:H8	1.74	0.51
24:YA:1113:U:H2'	24:YA:1114:G:C8	2.46	0.51
24:YA:1416:G:H2'	24:YA:1417:C:C6	2.46	0.51
24:YA:2345:G:C6	24:YA:2347:C:N4	2.78	0.51
26:YD:25:THR:OG1	26:YD:26:LYS:N	2.42	0.51
31:YI:39:ALA:HB1	31:YI:44:LEU:HD21	1.92	0.51
35:YQ:27:VAL:HG11	35:YQ:134:ARG:HA	1.92	0.51
22:XV:36:G:H2'	22:XV:37:G:C8	2.46	0.51
1:QA:195:A:H4'	20:QT:68:LYS:HE3	1.91	0.51
1:QA:902:G:H2'	1:QA:903:G:H8	1.76	0.51
1:QA:1355:G:H2'	1:QA:1356:G:C8	2.46	0.51
11:QK:34:ASP:HB3	11:QK:40:ILE:HD11	1.91	0.51
24:RA:947:G:H2'	24:RA:948:G:H8	1.76	0.51
24:RA:1353:A:H2'	24:RA:1354:A:C8	2.46	0.51
24:RA:2122:U:H2'	24:RA:2123:G:C8	2.46	0.51
27:RE:38:THR:OG1	27:RE:40:GLU:OE1	2.29	0.51
31:RI:122:GLU:O	31:RI:126:TYR:OH	2.29	0.51
32:RN:47:ALA:HB2	32:RN:112:LEU:HD11	1.90	0.51
1:XA:723:U:OP1	23:XX:7:G:O2'	2.28	0.51
1:XA:1469:G:H2'	1:XA:1470:G:H8	1.74	0.51
24:YA:34:C:H41	24:YA:447:A:H61	1.58	0.51
24:YA:627:A:H4'	24:YA:628:G:H5'	1.91	0.51
24:YA:659:C:H2'	24:YA:660:G:H8	1.74	0.51
36:YR:88:ARG:NH2	36:YR:89:ASP:OD1	2.44	0.51
1:QA:1151:A:H2'	1:QA:1152:A:C8	2.46	0.51
2:QB:102:LEU:HD21	2:QB:182:ILE:HG13	1.93	0.51
8:QH:9:MET:O	8:QH:13:ILE:HG12	2.11	0.51
13:QM:117:VAL:HG12	13:QM:118:ALA:H	1.76	0.51
24:RA:2443:C:H2'	24:RA:2444:G:H8	1.76	0.51
24:RA:2676:C:O2	24:RA:2732:G:N2	2.42	0.51
29:RG:124:SER:HB3	29:RG:131:TYR:HE2	1.76	0.51
43:RY:97:ARG:HG3	43:RY:106:LEU:HB2	1.93	0.51
2:XB:21:ARG:HB2	2:XB:39:ILE:HD13	1.93	0.51
4:XD:43:HIS:HA	4:XD:46:LYS:HD3	1.93	0.51
24:YA:1942:C:OP2	24:YA:1943:U:O2'	2.21	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2354:G:H4'	45:Y0:35:ASN:HD22	1.76	0.51
25:YB:15:A:H5'	25:YB:16:G:H8	1.76	0.51
29:YG:82:LEU:HD21	29:YG:88:ILE:HD13	1.92	0.51
31:YI:86:THR:HA	31:YI:123:LEU:HB2	1.93	0.51
35:YQ:59:ARG:HD2	35:YQ:59:ARG:H	1.75	0.51
1:QA:448:A:H62	1:QA:486:U:H3	1.58	0.51
1:QA:1032(B):G:N2	1:QA:1033:G:O6	2.43	0.51
1:QA:1175:G:H2'	1:QA:1176:A:H8	1.76	0.51
10:QJ:54:PHE:CD2	10:QJ:55:LYS:HD3	2.46	0.51
22:QV:37:G:H2'	22:QV:38:G:C8	2.46	0.51
24:RA:586:A:H5'	28:RF:89:VAL:HG21	1.93	0.51
36:RR:104:ARG:HG3	36:RR:107:ASP:HB3	1.92	0.51
1:XA:689:C:OP2	11:XK:55:LYS:NZ	2.44	0.51
1:XA:971:G:H5"	1:XA:972:C:H5"	1.91	0.51
1:XA:1028:C:H2'	1:XA:1028(A):C:C6	2.46	0.51
24:YA:576:U:H2'	24:YA:577:G:C8	2.46	0.51
24:YA:2303:G:N3	29:YG:132:ASN:ND2	2.58	0.51
24:YA:2306:C:H2'	24:YA:2307:G:H21	1.74	0.51
49:Y4:26:SER:OG	49:Y4:27:THR:N	2.44	0.51
1:QA:544:G:OP1	4:QD:59:ARG:NH2	2.44	0.51
1:QA:701:C:OP1	1:QA:702:A:O2'	2.20	0.51
1:QA:1229:A:P	13:QM:114:ARG:HH21	2.35	0.51
12:QL:58:VAL:HG11	12:QL:85:ILE:HD11	1.92	0.51
12:QL:117:ARG:HB2	12:QL:122:THR:HB	1.92	0.51
15:QO:54:ARG:HA	15:QO:57:LEU:HD12	1.93	0.51
23:QX:6:C:H2'	23:QX:7:A:C8	2.46	0.51
24:RA:221:A:H4'	24:RA:222:A:O5'	2.11	0.51
24:RA:1570:A:H2'	24:RA:1571:A:C8	2.46	0.51
24:RA:2150:U:H2'	24:RA:2151:G:H8	1.76	0.51
35:RQ:37:LEU:HD11	35:RQ:130:LYS:HB2	1.93	0.51
1:XA:558:G:OP2	1:XA:559:A:O2'	2.25	0.51
1:XA:652:U:O4	1:XA:752:G:O2'	2.22	0.51
4:XD:62:GLN:HE22	4:XD:65:ARG:HH21	1.59	0.51
24:YA:1139:G:O2'	24:YA:1143:A:N1	2.39	0.51
24:YA:1265:A:H3'	50:Y5:19:ARG:HH21	1.75	0.51
24:YA:1508:A:O2'	24:YA:1509:C:O4'	2.27	0.51
24:YA:1539:G:H2'	24:YA:1540:G:C8	2.46	0.51
25:YB:37:C:O2	37:YS:95:HIS:NE2	2.41	0.51
1:QA:304:U:H2'	1:QA:305:G:C8	2.47	0.50
1:QA:359:U:H2'	1:QA:360:A:C8	2.47	0.50
1:QA:522:C:H41	12:QL:53:ARG:HH21	1.57	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:181:A:H1'	24:RA:435:C:H5'	1.91	0.50
24:RA:530:G:O2'	24:RA:532:A:N7	2.43	0.50
24:RA:662:G:H2'	24:RA:663:G:H8	1.75	0.50
24:RA:1473:G:C8	24:RA:1473:G:C5'	2.90	0.50
24:RA:1950:G:OP2	24:RA:1950:G:N2	2.35	0.50
24:RA:2749:A:H5"	30:RH:4:ILE:HD12	1.93	0.50
1:XA:484:G:H4'	1:XA:485:G:O5'	2.10	0.50
1:XA:1499:A:H1'	1:XA:1520:G:H5'	1.93	0.50
24:YA:1161:C:H2'	24:YA:1162:G:H8	1.76	0.50
24:YA:1426:G:OP2	24:YA:1427:A:O2'	2.20	0.50
38:YT:118:ARG:HA	38:YT:121:ILE:HG22	1.93	0.50
1:QA:657:G:H4'	15:QO:28:GLN:HG2	1.92	0.50
1:QA:701:C:H1'	1:QA:703:G:C6	2.47	0.50
3:QC:116:VAL:HA	3:QC:119:ARG:HG2	1.93	0.50
14:QN:24:CYS:HB3	14:QN:29:ARG:H	1.76	0.50
24:RA:214:G:HO2'	24:RA:216:A:HO2'	1.58	0.50
24:RA:270(L):U:H2'	31:RI:50:ARG:HH12	1.76	0.50
24:RA:1827:C:OP2	26:RD:222:ARG:NH1	2.44	0.50
24:RA:2368:C:H2'	24:RA:2369:A:H8	1.75	0.50
24:RA:2441:C:OP2	24:RA:2586:C:O2'	2.27	0.50
1:XA:287:U:H2'	1:XA:288:A:C8	2.47	0.50
1:XA:339:C:OP2	33:YO:97:ARG:HD3	2.10	0.50
8:XH:135:CYS:SG	8:XH:136:GLU:N	2.84	0.50
24:YA:270(F):U:H3	24:YA:270(T):G:H1	1.60	0.50
24:YA:922:U:H2'	24:YA:923:C:C6	2.47	0.50
24:YA:1292:U:H2'	24:YA:1293:C:C6	2.47	0.50
25:YB:50:G:OP1	37:YS:63:THR:HG23	2.12	0.50
49:Y4:55:ARG:H	49:Y4:55:ARG:HD2	1.76	0.50
1:QA:973:G:O6	1:QA:974:A:N6	2.44	0.50
4:QD:62:GLN:HE22	4:QD:65:ARG:HH21	1.60	0.50
4:QD:63:LYS:O	4:QD:67:ILE:HG13	2.10	0.50
22:QV:37:G:H2'	22:QV:38:G:H8	1.75	0.50
24:RA:946:G:O6	24:RA:972:G:N2	2.45	0.50
24:RA:1830:C:H2'	24:RA:1831:G:H8	1.76	0.50
43:RY:39:VAL:HG23	43:RY:42:VAL:HB	1.93	0.50
1:XA:627:G:H2'	1:XA:628:G:H8	1.76	0.50
1:XA:1273:G:H3'	1:XA:1274:G:H8	1.74	0.50
24:YA:1000:A:H2'	24:YA:1001:A:C8	2.46	0.50
24:YA:2103:C:O2	24:YA:2187:G:N2	2.44	0.50
24:YA:2115:G:O5'	24:YA:2166:G:O2'	2.29	0.50
24:YA:2776:A:H4'	24:YA:2777:G:O5'	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:QH:32:LYS:O	8:QH:36:LEU:HG	2.12	0.50
11:QK:44:SER:OG	11:QK:45:GLY:N	2.45	0.50
24:RA:83:G:O2'	24:RA:102:G:N2	2.44	0.50
24:RA:679:C:H2'	24:RA:680:G:C8	2.46	0.50
24:RA:1791:A:H3'	24:RA:1792:G:H8	1.75	0.50
24:RA:2285:C:OP1	51:R6:29:ASN:ND2	2.45	0.50
38:RT:50:ILE:HD11	38:RT:100:TYR:HA	1.92	0.50
1:XA:825:G:O2'	8:XH:12:ARG:NH2	2.41	0.50
24:YA:531:C:OP1	24:YA:561:G:N1	2.44	0.50
24:YA:691:C:H2'	24:YA:692:C:H6	1.77	0.50
24:YA:1203:G:H3'	24:YA:1204:A:H5"	1.91	0.50
24:YA:2537:U:H2'	24:YA:2538:C:C6	2.46	0.50
44:YZ:4:ARG:HG2	44:YZ:58:VAL:HB	1.93	0.50
49:Y4:16:CYS:SG	49:Y4:17:GLY:N	2.84	0.50
1:QA:1031:G:H2'	1:QA:1032:A:H8	1.77	0.50
24:RA:1527:G:N2	24:RA:1546:C:N3	2.59	0.50
24:RA:1826:G:OP1	26:RD:224:ALA:N	2.43	0.50
49:R4:16:CYS:HB3	49:R4:20:ASN:HB3	1.93	0.50
1:XA:1412:C:H2'	1:XA:1413:A:C8	2.47	0.50
14:XN:24:CYS:SG	14:XN:29:ARG:HB3	2.52	0.50
24:YA:815:C:OP2	40:YV:83:ARG:NH1	2.44	0.50
24:YA:1570:A:H2'	24:YA:1571:A:C8	2.46	0.50
31:YI:63:ALA:O	31:YI:66:GLU:HG2	2.12	0.50
35:YQ:28:ALA:HB3	35:YQ:67:ARG:HH12	1.75	0.50
39:YU:90:VAL:HG12	39:YU:91:ASP:H	1.76	0.50
44:YZ:13:GLU:HB3	44:YZ:18:LEU:HD21	1.93	0.50
1:QA:166:G:H2'	1:QA:167:G:H8	1.77	0.50
1:QA:359:U:H2'	1:QA:360:A:H8	1.77	0.50
1:QA:736:C:H2'	1:QA:737:A:H8	1.75	0.50
1:QA:922:G:H2'	1:QA:923:A:C8	2.46	0.50
1:QA:933:G:O6	7:QG:3:ARG:NH2	2.45	0.50
24:RA:1728:G:H8	24:RA:1732:A:H62	1.58	0.50
29:RG:140:ILE:HG13	29:RG:141:PHE:HD2	1.76	0.50
33:RO:2:ILE:HB	33:RO:33:ALA:HB3	1.94	0.50
14:XN:24:CYS:SG	14:XN:27:CYS:SG	3.09	0.50
24:YA:358:U:H2'	24:YA:359:A:H8	1.75	0.50
24:YA:428:A:H3'	24:YA:429:A:H8	1.76	0.50
24:YA:510:C:H2'	24:YA:511:U:O4'	2.11	0.50
24:YA:746:A:HO2'	24:YA:2611:U:HO2'	1.56	0.50
24:YA:847:U:O4	24:YA:933:A:N1	2.44	0.50
24:YA:2591:C:H2'	24:YA:2592:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2849:U:O4	38:YT:23:ARG:NH1	2.38	0.50
25:YB:5:C:OP1	25:YB:61:G:O2'	2.29	0.50
27:YE:52:LEU:O	27:YE:74:PRO:HA	2.11	0.50
29:YG:16:ARG:HH21	29:YG:28:VAL:HG12	1.76	0.50
1:QA:514:C:H2'	1:QA:515:G:C8	2.45	0.50
1:QA:1200:C:O2'	1:QA:1201:A:OP2	2.27	0.50
2:QB:136:VAL:HG23	2:QB:139:LYS:HE3	1.94	0.50
24:RA:582:G:H2'	24:RA:583:G:H8	1.76	0.50
30:RH:4:ILE:HB	30:RH:6:ARG:HH11	1.77	0.50
23:XX:1:G:H2'	23:XX:2:G:H8	1.77	0.50
24:YA:271(D):G:H2'	24:YA:272:G:H8	1.77	0.50
24:YA:828:U:H4'	24:YA:831:G:C6	2.46	0.50
24:YA:1035:U:OP1	30:YH:59:ARG:NH1	2.45	0.50
24:YA:1324:G:H1'	24:YA:1616:A:N6	2.26	0.50
1:QA:643:C:H5'	8:QH:31:PHE:CD2	2.46	0.50
3:QC:113:ALA:HA	3:QC:116:VAL:HG22	1.94	0.50
8:QH:111:ILE:HG23	8:QH:134:ILE:HB	1.94	0.50
24:RA:1333:C:H2'	24:RA:1334:G:H8	1.77	0.50
24:RA:1598:C:O3'	42:RX:35:THR:OG1	2.30	0.50
24:RA:2056:G:N2	50:R5:4:HIS:O	2.45	0.50
27:RE:14:ILE:HG13	38:RT:14:TYR:HE2	1.77	0.50
37:RS:110:LEU:HD12	37:RS:112:PHE:H	1.77	0.50
49:R4:51:ASP:HB2	49:R4:53:GLU:HG3	1.94	0.50
1:XA:323:U:OP1	20:XT:26:ASN:ND2	2.45	0.50
1:XA:501:C:H1'	1:XA:549:C:H1'	1.92	0.50
1:XA:589:C:H5"	8:XH:29:SER:HB2	1.94	0.50
1:XA:997:U:H2'	1:XA:998:G:C8	2.46	0.50
1:XA:1318:A:H1'	19:XS:37:ARG:HH21	1.76	0.50
24:YA:288:C:H2'	24:YA:289:A:C8	2.43	0.50
24:YA:1592:C:H2'	24:YA:1593:G:C8	2.45	0.50
24:YA:1889:A:N3	24:YA:2086:U:O2'	2.45	0.50
24:YA:1937:A:N7	24:YA:1939:U:H2'	2.26	0.50
1:QA:1147:C:O2	9:QI:16:ARG:NH1	2.44	0.50
24:RA:226:G:O2'	24:RA:228:A:N6	2.44	0.50
24:RA:251:A:OP1	53:R8:7:HIS:NE2	2.30	0.50
24:RA:1000:A:OP2	24:RA:1154:G:N1	2.24	0.50
24:RA:2183:C:H2'	24:RA:2184:G:C8	2.46	0.50
26:RD:139:GLY:H	26:RD:165:ILE:HG23	1.76	0.50
1:XA:256:U:OP1	17:XQ:17:LYS:NZ	2.45	0.50
1:XA:483:C:OP2	1:XA:484:G:O2'	2.23	0.50
1:XA:737:A:H2'	1:XA:738:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1512:U:H2'	1:XA:1513:A:C8	2.47	0.50
24:YA:796:C:H2'	24:YA:797:C:C6	2.47	0.50
24:YA:1230:C:H2'	24:YA:1231:G:C8	2.47	0.50
33:YO:88:ASN:OD1	33:YO:92:GLU:N	2.36	0.50
37:YS:26:LEU:HB3	37:YS:87:PHE:HA	1.93	0.50
4:QD:119:GLN:HA	4:QD:122:ARG:HE	1.76	0.49
11:QK:29:ILE:HG22	11:QK:44:SER:HB2	1.93	0.49
24:RA:1629:U:H2'	24:RA:1630:G:C8	2.47	0.49
28:RF:161:GLU:OE2	28:RF:164:ARG:NH2	2.42	0.49
43:RY:102:CYS:SG	43:RY:103:GLY:N	2.85	0.49
1:XA:112:G:H4'	1:XA:389:A:H4'	1.94	0.49
1:XA:1291:G:O2'	9:XI:38:GLN:OE1	2.30	0.49
10:XJ:43:ARG:O	10:XJ:67:THR:OG1	2.29	0.49
24:YA:819:A:OP2	24:YA:1187:G:N2	2.40	0.49
24:YA:2361:A:O5'	53:Y8:27:THR:OG1	2.30	0.49
24:YA:2849:U:OP2	38:YT:95:ARG:NH1	2.44	0.49
25:YB:40:U:H3	25:YB:43:C:H5"	1.77	0.49
32:YN:128:HIS:CE1	32:YN:134:ARG:HD2	2.47	0.49
1:QA:403:C:OP2	4:QD:74:GLN:NE2	2.45	0.49
1:QA:629:G:H2'	1:QA:630:G:C8	2.47	0.49
3:QC:83:ARG:O	3:QC:87:LEU:HG	2.11	0.49
24:RA:414:C:H2'	24:RA:415:A:H8	1.77	0.49
24:RA:996:A:OP2	39:RU:92:ARG:NH2	2.46	0.49
42:RX:72:LYS:NZ	42:RX:75:ASP:OD1	2.39	0.49
1:XA:851:G:H2'	1:XA:852:G:H8	1.77	0.49
1:XA:1306:A:N6	1:XA:1331:G:O2'	2.46	0.49
1:XA:1409:C:H2'	1:XA:1410:G:H8	1.77	0.49
7:XG:107:ALA:O	7:XG:110:GLN:NE2	2.45	0.49
24:YA:151:C:H2'	24:YA:152:G:H8	1.77	0.49
24:YA:597:U:H2'	24:YA:598:G:C8	2.46	0.49
24:YA:1598:C:H5'	42:YX:36:LYS:HB2	1.94	0.49
24:YA:2064:C:H2'	24:YA:2065:C:C6	2.47	0.49
42:YX:26:TYR:HE2	42:YX:89:ILE:H	1.60	0.49
44:YZ:7:ALA:HB2	44:YZ:59:LEU:HB3	1.94	0.49
1:QA:269:C:H2'	1:QA:270:A:H8	1.77	0.49
1:QA:1129:C:H42	1:QA:1141:C:H41	1.60	0.49
4:QD:11:LEU:H	4:QD:11:LEU:HD12	1.77	0.49
5:QE:121:LYS:NZ	5:QE:122:GLU:O	2.44	0.49
8:QH:51:VAL:HG21	8:QH:60:ARG:HG3	1.94	0.49
10:QJ:35:SER:HB2	10:QJ:73:ASP:HB2	1.93	0.49
24:RA:192:C:O2'	24:RA:802:A:N3	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:730:C:H3'	24:RA:730:C:C6	2.47	0.49
24:RA:863:A:H2'	24:RA:864:G:H8	1.77	0.49
24:RA:1216:G:OP1	39:RU:11:ARG:NH2	2.28	0.49
24:RA:1265:A:H8	24:RA:1265:A:OP1	1.94	0.49
24:RA:2056:G:OP2	24:RA:2057:A:OP2	2.30	0.49
36:RR:88:ARG:NH2	36:RR:89:ASP:OD1	2.45	0.49
37:RS:24:LEU:HB2	37:RS:85:VAL:HG13	1.94	0.49
1:XA:99:C:H2'	1:XA:101:A:C8	2.47	0.49
24:YA:1779:U:OP2	24:YA:1784:A:N6	2.39	0.49
24:YA:1827:C:OP2	26:YD:222:ARG:NH1	2.42	0.49
24:YA:2008:C:H2'	24:YA:2009:G:H8	1.76	0.49
25:YB:24:G:H1'	25:YB:27:C:H41	1.78	0.49
1:QA:662:G:O2'	1:QA:836:G:OP1	2.30	0.49
1:QA:1302:U:O2	13:QM:27:LYS:NZ	2.43	0.49
10:QJ:16:LEU:HD12	10:QJ:94:VAL:HG22	1.95	0.49
20:QT:54:LYS:HZ1	20:QT:100:ILE:HG21	1.77	0.49
24:RA:1771:C:H2'	24:RA:1772:G:C8	2.46	0.49
24:RA:2151:G:H2'	24:RA:2152:G:H8	1.77	0.49
27:RE:21:VAL:HG23	27:RE:185:LYS:HE3	1.94	0.49
31:RI:14:ASP:C	31:RI:16:GLY:H	2.21	0.49
2:XB:84:GLU:OE2	2:XB:233:SER:OG	2.26	0.49
11:XK:34:ASP:OD1	11:XK:38:ASN:N	2.45	0.49
24:YA:780:G:H21	24:YA:783:A:H62	1.60	0.49
24:YA:1399:C:H2'	24:YA:1400:G:H8	1.76	0.49
24:YA:2468:G:O2'	24:YA:2481:G:N2	2.46	0.49
24:YA:2632:A:HO2'	24:YA:2811:G:HO2'	1.60	0.49
12:QL:46:LYS:HZ2	12:QL:47:LYS:N	2.08	0.49
24:RA:447:A:O4'	24:RA:449:A:N6	2.46	0.49
24:RA:631:A:OP2	53:R8:46:ARG:NH2	2.46	0.49
24:RA:1286:A:O2'	24:RA:1288:U:OP2	2.23	0.49
24:RA:1341:U:OP2	24:RA:1394:U:O2'	2.26	0.49
24:RA:2495:G:H5"	35:RQ:81:VAL:HG12	1.95	0.49
33:RO:49:ARG:N	33:RO:53:LYS:HZ3	2.10	0.49
1:XA:946:A:H2'	1:XA:947:G:H8	1.78	0.49
2:XB:91:PRO:HG3	2:XB:154:LEU:HB2	1.95	0.49
3:XC:116:VAL:HG13	3:XC:140:ARG:HH21	1.77	0.49
7:XG:41:ARG:HH12	7:XG:115:ARG:HH21	1.60	0.49
8:XH:112:LEU:HG	8:XH:133:LEU:HA	1.94	0.49
10:XJ:30:SER:O	10:XJ:30:SER:OG	2.29	0.49
24:YA:822:U:H2'	24:YA:823:G:H8	1.77	0.49
24:YA:2133:G:O2'	24:YA:2158:A:N1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:YG:10:LYS:NZ	29:YG:14:GLU:OE1	2.44	0.49
29:YG:31:VAL:O	29:YG:33:ARG:NH1	2.43	0.49
1:QA:636:U:H2'	1:QA:637:G:H8	1.78	0.49
1:QA:1112:C:H1'	3:QC:179:ARG:HH11	1.78	0.49
24:RA:1592:C:H2'	24:RA:1593:G:H8	1.76	0.49
24:RA:1821:A:H2'	24:RA:1822:G:C8	2.48	0.49
24:RA:2102:U:H2'	24:RA:2103:C:H6	1.77	0.49
24:RA:2506:U:H3	24:RA:2584:U:H5	1.59	0.49
38:RT:3:ARG:HG3	38:RT:6:LEU:HB3	1.93	0.49
44:RZ:144:LEU:HD22	44:RZ:150:LEU:HG	1.94	0.49
1:XA:673:G:O3'	6:XF:87:ARG:NH2	2.46	0.49
1:XA:816:A:OP2	1:XA:1526:G:O2'	2.30	0.49
24:YA:969:U:H2'	24:YA:970:C:C6	2.47	0.49
24:YA:1645:G:H5"	24:YA:1646:C:C5'	2.43	0.49
24:YA:2036:C:H2'	24:YA:2037:G:H8	1.77	0.49
24:YA:2314:C:H2'	24:YA:2315:G:C8	2.47	0.49
24:YA:2737:G:H2'	24:YA:2738:A:C8	2.47	0.49
29:YG:37:VAL:HG23	29:YG:99:MET:HE3	1.94	0.49
37:YS:20:ARG:NH1	45:Y0:48:GLY:O	2.45	0.49
1:QA:362:G:OP2	12:QL:34:ARG:NH2	2.46	0.49
1:QA:707:C:H2'	1:QA:708:C:C6	2.47	0.49
1:QA:1392:G:H21	1:QA:1502:A:H8	1.59	0.49
15:QO:76:GLU:OE2	15:QO:79:ARG:NH2	2.45	0.49
24:RA:288:C:H2'	24:RA:289:A:H8	1.77	0.49
24:RA:581:C:H2'	24:RA:582:G:C8	2.47	0.49
24:RA:2798:C:H2'	24:RA:2799:A:C8	2.47	0.49
1:XA:1355:G:H2'	1:XA:1356:G:H8	1.76	0.49
17:XQ:4:LYS:NZ	17:XQ:5:VAL:O	2.46	0.49
23:XX:3:C:H2'	23:XX:4:A:C8	2.48	0.49
24:YA:1059:G:OP2	24:YA:1060:U:H5"	2.12	0.49
24:YA:2183:C:H2'	24:YA:2184:G:H8	1.76	0.49
24:YA:2289:G:H2'	24:YA:2290:G:H8	1.77	0.49
24:YA:2676:C:H2'	24:YA:2677:G:H8	1.77	0.49
24:YA:2702:U:OP1	24:YA:2702:U:H6	1.96	0.49
24:YA:2836:U:H2'	24:YA:2837:G:C8	2.47	0.49
24:YA:2884:U:H2'	24:YA:2885:C:O4'	2.12	0.49
29:YG:129:GLY:HA2	29:YG:166:ASP:HA	1.94	0.49
3:QC:109:PRO:O	3:QC:112:SER:OG	2.31	0.49
8:QH:109:ILE:HD11	8:QH:120:THR:HB	1.95	0.49
24:RA:840:C:H2'	24:RA:841:A:H8	1.76	0.49
24:RA:922:U:H2'	24:RA:923:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1006:C:H5'	32:RN:28:THR:HG23	1.95	0.49
24:RA:2689:U:H4'	24:RA:2690:C:O5'	2.13	0.49
43:RY:37:VAL:O	43:RY:67:LEU:N	2.42	0.49
1:XA:407:G:OP1	4:XD:115:ARG:NH1	2.46	0.49
1:XA:1004:A:H1'	1:XA:1036:G:H22	1.77	0.49
4:XD:61:LYS:HD2	4:XD:206:PHE:CE2	2.48	0.49
5:XE:102:ALA:O	5:XE:107:ARG:NH2	2.46	0.49
8:XH:83:ILE:HG22	8:XH:137:VAL:HG22	1.93	0.49
14:XN:3:ARG:HH21	14:XN:4:LYS:HD3	1.76	0.49
24:YA:319:C:H2'	24:YA:320:A:C8	2.48	0.49
24:YA:852:G:H2'	24:YA:853:G:H8	1.78	0.49
37:YS:25:ARG:NH1	37:YS:42:ASP:OD2	2.46	0.49
47:Y2:25:VAL:O	47:Y2:29:LYS:HG2	2.12	0.49
1:QA:1251:A:H2'	1:QA:1252:A:C8	2.48	0.49
4:QD:101:LEU:HD12	4:QD:138:TYR:HB3	1.94	0.49
5:QE:76:ILE:HG23	5:QE:142:LEU:HD13	1.95	0.49
12:QL:32:PHE:HB3	12:QL:84:LEU:HD11	1.94	0.49
24:RA:303:U:H2'	24:RA:304:G:H8	1.77	0.49
24:RA:1791:A:H5'	26:RD:206:LEU:HD12	1.94	0.49
24:RA:2291:U:H2'	24:RA:2292:C:C6	2.48	0.49
35:RQ:58:PHE:HD2	35:RQ:61:GLY:HA3	1.78	0.49
39:RU:61:TRP:HB3	39:RU:93:LYS:O	2.12	0.49
42:RX:8:ILE:O	47:R2:36:ARG:NH2	2.46	0.49
44:RZ:53:ILE:HG22	44:RZ:71:VAL:HG13	1.93	0.49
1:XA:345:C:H1'	1:XA:346:G:OP2	2.12	0.49
3:XC:157:ILE:HG22	3:XC:164:ARG:HH21	1.77	0.49
3:XC:182:ILE:HD11	3:XC:201:TYR:HB3	1.93	0.49
9:XI:5:TYR:HE1	9:XI:16:ARG:HB2	1.77	0.49
9:XI:73:GLN:O	9:XI:77:ILE:HG12	2.13	0.49
10:XJ:7:LYS:HB3	10:XJ:97:GLU:HB3	1.94	0.49
17:XQ:28:PRO:HA	17:XQ:35:VAL:HA	1.95	0.49
23:XX:5:A:H2'	23:XX:6:G:C8	2.48	0.49
24:YA:277:C:H5'	24:YA:278:A:H5'	1.95	0.49
24:YA:532:A:N1	24:YA:2035:G:N2	2.60	0.49
24:YA:689:A:H2'	24:YA:690:G:H8	1.78	0.49
24:YA:1580:A:H5'	24:YA:1581:G:OP2	2.13	0.49
24:YA:1615:C:OP2	24:YA:1617:C:N4	2.33	0.49
24:YA:2294:C:OP2	37:YS:13:ARG:NH2	2.45	0.49
24:YA:2743:C:OP2	24:YA:2755:C:N4	2.46	0.49
26:YD:123:ALA:HB3	26:YD:131:LEU:HG	1.95	0.49
43:YY:48:ALA:HA	43:YY:60:PHE:HD2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1287:A:H2	1:QA:1353:G:H1'	1.78	0.49
1:QA:1320:C:H42	19:QS:36:ARG:HB2	1.78	0.49
22:QV:44:G:H2'	22:QV:45:G:C8	2.47	0.49
24:RA:86:C:H4'	24:RA:104:U:H1'	1.95	0.49
24:RA:270(I):G:H2'	24:RA:270(J):G:C8	2.48	0.49
24:RA:969:U:H2'	24:RA:970:C:C6	2.48	0.49
24:RA:2584:U:H2'	24:RA:2585:U:H2'	1.95	0.49
30:RH:25:LYS:HZ2	30:RH:26:VAL:H	1.59	0.49
36:RR:74:LYS:C	36:RR:76:VAL:H	2.21	0.49
1:XA:524:G:H2'	1:XA:525:C:C6	2.48	0.49
1:XA:628:G:H2'	1:XA:629:G:C8	2.48	0.49
1:XA:708:C:H2'	1:XA:709:G:H8	1.78	0.49
1:XA:1225:A:H5"	1:XA:1226:C:OP2	2.13	0.49
4:XD:88:VAL:HG22	4:XD:90:GLY:H	1.77	0.49
13:XM:78:ILE:HD11	13:XM:92:HIS:HB3	1.94	0.49
21:XU:8:THR:HG23	21:XU:11:GLY:H	1.78	0.49
24:YA:259:G:H21	24:YA:621:A:H8	1.60	0.49
24:YA:607:U:H3	24:YA:621:A:H2	1.61	0.49
24:YA:2318:G:H22	37:YS:2:ALA:HA	1.78	0.49
24:YA:2355:C:H1'	45:Y0:39:ARG:HH21	1.78	0.49
49:Y4:34:GLU:HG2	49:Y4:35:VAL:HG12	1.93	0.49
1:QA:41:G:H2'	1:QA:42:G:H8	1.77	0.48
1:QA:662:G:H2'	1:QA:663:A:C8	2.48	0.48
1:QA:924:C:O2'	1:QA:1502:A:N6	2.46	0.48
20:QT:51:GLU:O	20:QT:55:ILE:HG12	2.13	0.48
24:RA:640:C:H2'	24:RA:641:C:C6	2.48	0.48
24:RA:784:A:OP2	24:RA:2589:A:OP1	2.30	0.48
40:RV:57:VAL:HG12	40:RV:99:ILE:HG23	1.94	0.48
1:XA:119:A:C8	1:XA:288:A:C6	3.01	0.48
1:XA:191(G):G:C4	20:XT:105:SER:HB3	2.48	0.48
24:YA:2619:C:H5"	27:YE:152:LYS:HA	1.95	0.48
24:YA:2735:G:H2'	24:YA:2736:G:H8	1.78	0.48
30:YH:41:MET:HE1	30:YH:54:ARG:HB3	1.95	0.48
32:YN:137:LYS:HD3	32:YN:138:LEU:N	2.28	0.48
1:QA:346:G:H1'	1:QA:347:G:H5'	1.95	0.48
1:QA:1075:C:H5"	2:QB:179:LYS:NZ	2.28	0.48
24:RA:270:A:OP2	24:RA:270(Y):G:N1	2.46	0.48
24:RA:1593:G:H2'	24:RA:1594:G:C8	2.47	0.48
24:RA:2197:U:H1'	24:RA:2198:A:C8	2.48	0.48
24:RA:2469:A:H2'	35:RQ:56:ARG:HE	1.78	0.48
24:RA:2747:G:N2	24:RA:2757:A:H62	2.09	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:RD:90:ALA:HB3	26:RD:106:ILE:HD11	1.94	0.48
1:XA:41:G:H2'	1:XA:42:G:H8	1.78	0.48
1:XA:309:G:H2'	1:XA:310:G:H8	1.79	0.48
1:XA:693:G:H2'	1:XA:694:A:C8	2.48	0.48
4:XD:158:ILE:O	4:XD:162:LEU:HG	2.13	0.48
7:XG:15:ASP:HB3	7:XG:19:GLY:H	1.78	0.48
15:XO:70:LEU:HD21	15:XO:77:ARG:HG3	1.95	0.48
24:YA:1405:U:H2'	24:YA:1406:U:C6	2.47	0.48
24:YA:1438:U:H2'	24:YA:1439:A:H8	1.78	0.48
24:YA:1647:G:H3'	24:YA:1647:G:OP2	2.14	0.48
24:YA:2655:G:N2	24:YA:2665:A:OP2	2.47	0.48
29:YG:136:ARG:HG2	29:YG:137:GLU:H	1.78	0.48
33:YO:73:ASP:OD1	33:YO:75:SER:OG	2.32	0.48
1:QA:164:U:H2'	1:QA:165:C:C6	2.48	0.48
1:QA:539:A:H2'	1:QA:540:G:C8	2.48	0.48
2:QB:71:VAL:HA	2:QB:93:VAL:HB	1.95	0.48
9:QI:73:GLN:O	9:QI:77:ILE:HG12	2.13	0.48
10:QJ:30:SER:HB2	10:QJ:80:LYS:HG3	1.94	0.48
16:QP:67:THR:HG22	16:QP:68:ASP:H	1.78	0.48
24:RA:2306:C:H3'	24:RA:2307:G:H5"	1.95	0.48
24:RA:2431:U:N3	24:RA:2434:A:OP2	2.32	0.48
24:RA:2581:G:N2	24:RA:2581:G:OP2	2.46	0.48
24:RA:2701:C:H3'	24:RA:2702:U:C5'	2.44	0.48
33:RO:63:VAL:HG12	33:RO:106:LEU:HD21	1.94	0.48
34:RP:90:ARG:HG3	34:RP:91:PHE:HD1	1.79	0.48
38:RT:109:GLU:OE1	38:RT:112:ARG:NH1	2.46	0.48
1:XA:1230:C:H5'	22:XV:31:C:H5"	1.95	0.48
15:XO:54:ARG:HG2	15:XO:58:MET:HE2	1.94	0.48
19:XS:3:ARG:HH12	19:XS:11:VAL:HG22	1.77	0.48
24:YA:270(I):G:H2'	24:YA:270(J):G:C8	2.47	0.48
24:YA:511:U:H5"	24:YA:1236:G:OP1	2.13	0.48
24:YA:675:A:N3	24:YA:2443:C:O2'	2.39	0.48
24:YA:918:A:N3	25:YB:80:U:O2'	2.44	0.48
24:YA:1853:A:N3	24:YA:2233:U:O2'	2.41	0.48
24:YA:1869:G:H5'	24:YA:1870:C:OP2	2.13	0.48
26:YD:147:LEU:HD21	26:YD:183:ARG:HH22	1.78	0.48
46:Y1:46:LEU:O	46:Y1:47:GLN:NE2	2.47	0.48
1:QA:552:U:H2'	1:QA:553:A:H8	1.78	0.48
1:QA:745:C:H2'	1:QA:746:A:C8	2.48	0.48
1:QA:745:C:H2'	1:QA:746:A:H8	1.78	0.48
1:QA:1043:C:H2'	1:QA:1044:A:H8	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:QH:12:ARG:HD2	8:QH:26:VAL:HG22	1.94	0.48
24:RA:995:C:O2	32:RN:3:THR:OG1	2.32	0.48
24:RA:1525:G:H2'	24:RA:1526:G:C8	2.48	0.48
24:RA:2452:C:H2'	24:RA:2453:A:C8	2.48	0.48
24:RA:2737:G:H2'	24:RA:2738:A:C8	2.47	0.48
1:XA:50:A:H1'	1:XA:52:G:C8	2.48	0.48
1:XA:430:A:P	4:XD:8:VAL:H	2.37	0.48
1:XA:590:C:OP1	8:XH:30:ARG:N	2.42	0.48
1:XA:748:C:H1'	1:XA:749:C:H5	1.79	0.48
1:XA:877:C:H2'	1:XA:878:G:C8	2.48	0.48
24:YA:210:C:H2'	24:YA:211:A:H8	1.77	0.48
24:YA:587:C:OP2	34:YP:21:ARG:NH1	2.30	0.48
24:YA:1408:C:H2'	24:YA:1409:C:C6	2.49	0.48
24:YA:1812:A:H2'	24:YA:1813:G:H8	1.79	0.48
24:YA:2001:A:H2'	24:YA:2002:G:C8	2.49	0.48
47:Y2:45:SER:O	47:Y2:46:GLN:NE2	2.46	0.48
1:QA:501:C:H2'	1:QA:502:G:C8	2.48	0.48
1:QA:639:G:H2'	1:QA:640:A:H8	1.77	0.48
1:QA:1047:G:H5"	14:QN:4:LYS:HD2	1.96	0.48
12:QL:110:VAL:O	12:QL:122:THR:OG1	2.28	0.48
22:QV:66:U:H2'	22:QV:67:A:H8	1.79	0.48
24:RA:116:C:O2'	24:RA:126:A:N3	2.42	0.48
24:RA:1411:C:H42	24:RA:1591:G:H1	1.62	0.48
24:RA:2514:U:H2'	24:RA:2515:C:C6	2.48	0.48
24:RA:2698:U:H2'	24:RA:2699:C:C6	2.48	0.48
24:RA:2784:C:O2'	27:RE:37:ARG:NH1	2.46	0.48
24:RA:2787:C:H1'	27:RE:62:PRO:HG3	1.94	0.48
29:RG:142:PRO:HB2	49:R4:31:ILE:HG21	1.95	0.48
37:RS:8:GLU:O	37:RS:11:LYS:HB3	2.14	0.48
1:XA:17:U:H2'	1:XA:18:C:C6	2.49	0.48
1:XA:343:U:O2	1:XA:346:G:N1	2.47	0.48
2:XB:76:GLN:HG2	2:XB:208:ILE:HG13	1.96	0.48
3:XC:83:ARG:O	3:XC:87:LEU:HG	2.14	0.48
24:YA:848:G:H2'	24:YA:849:A:C8	2.48	0.48
24:YA:956:G:OP2	35:YQ:14:ARG:NH2	2.46	0.48
24:YA:1243:G:H4'	34:YP:7:ARG:HH21	1.78	0.48
24:YA:1939:U:H3'	24:YA:1940:U:H5'	1.94	0.48
24:YA:2037:G:H2'	24:YA:2038:G:C8	2.47	0.48
24:YA:2515:C:H2'	24:YA:2516:G:H8	1.77	0.48
24:YA:2737:G:H2'	24:YA:2738:A:H8	1.79	0.48
28:YF:122:LYS:HB3	28:YF:191:ARG:HG3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YP:52:GLU:OE2	34:YP:58:THR:OG1	2.28	0.48
35:YQ:41:TRP:HB3	35:YQ:94:VAL:HG21	1.95	0.48
1:QA:563:A:O2'	1:QA:566:G:O3'	2.30	0.48
3:QC:157:ILE:HD13	3:QC:166:GLU:HG2	1.94	0.48
22:QV:59:A:O2'	22:QV:61:U:OP2	2.16	0.48
23:QX:11:A:H2'	23:QX:12:G:C8	2.48	0.48
24:RA:271(D):G:H2'	24:RA:272:G:C8	2.49	0.48
24:RA:271(D):G:H2'	24:RA:272:G:H8	1.78	0.48
24:RA:2627:G:N2	24:RA:2777:G:OP2	2.47	0.48
24:RA:2841:C:H2'	24:RA:2842:G:H8	1.79	0.48
29:RG:3:LEU:HD12	49:R4:25:TYR:HE2	1.79	0.48
1:XA:1244:C:OP2	21:XU:9:ARG:NE	2.47	0.48
5:XE:103:GLY:C	5:XE:106:PRO:HD2	2.38	0.48
24:YA:363(B):G:H2'	24:YA:363(C):G:H8	1.79	0.48
24:YA:578:A:OP1	24:YA:1255:U:O2'	2.28	0.48
24:YA:1754:C:OP1	38:YT:96:ARG:NH1	2.47	0.48
24:YA:2853:C:H2'	24:YA:2854:G:H8	1.78	0.48
26:YD:17:THR:HG22	26:YD:204:ILE:HD12	1.95	0.48
26:YD:72:LYS:HG3	26:YD:97:TYR:CE2	2.48	0.48
27:YE:26:ILE:HB	27:YE:182:LEU:HB3	1.95	0.48
29:YG:107:LEU:HD13	29:YG:111:LEU:HD12	1.96	0.48
30:YH:46:GLU:OE1	30:YH:51:ARG:NH1	2.47	0.48
1:QA:5:U:O2'	1:QA:6:G:O5'	2.32	0.48
1:QA:1151:A:H2'	1:QA:1152:A:H8	1.79	0.48
1:QA:1367:C:H5'	10:QJ:60:ARG:NH1	2.28	0.48
4:QD:133:VAL:HG12	4:QD:135:LEU:H	1.78	0.48
5:QE:75:THR:HA	5:QE:115:VAL:HG13	1.95	0.48
7:QG:54:THR:HG22	7:QG:56:GLN:HG2	1.95	0.48
8:QH:36:LEU:HA	8:QH:39:LEU:HD12	1.94	0.48
10:QJ:38:ILE:HD12	10:QJ:39:PRO:HD2	1.96	0.48
24:RA:463:G:N2	24:RA:466:A:OP2	2.32	0.48
24:RA:514:A:N3	24:RA:581:C:O2'	2.39	0.48
24:RA:1295:C:H2'	24:RA:1296:G:H8	1.79	0.48
24:RA:2466:C:OP1	54:R9:4:ARG:HB2	2.14	0.48
25:RB:89:G:H2'	25:RB:89(A):A:C8	2.49	0.48
31:RI:26:ALA:HA	31:RI:30:LEU:HB2	1.95	0.48
37:RS:25:ARG:NH1	37:RS:42:ASP:OD2	2.46	0.48
1:XA:1291:G:H4'	9:XI:39:GLY:HA3	1.95	0.48
24:YA:270(R):G:H2'	24:YA:270(S):G:C8	2.48	0.48
24:YA:1403:C:H5"	24:YA:1471:A:H1'	1.96	0.48
24:YA:1939:U:OP1	24:YA:2604:U:O2'	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2341:G:H2'	24:YA:2342:C:C6	2.48	0.48
39:YU:91:ASP:O	39:YU:93:LYS:N	2.47	0.48
54:Y9:25:VAL:HB	54:Y9:34:GLN:HB2	1.95	0.48
1:QA:944:G:N1	1:QA:1338:G:OP2	2.44	0.48
1:QA:1314:C:OP2	19:QS:4:SER:OG	2.20	0.48
1:QA:1435:G:H2'	1:QA:1436:U:C6	2.49	0.48
1:QA:1446:A:O2'	1:QA:1447:G:O5'	2.24	0.48
3:QC:11:ARG:O	3:QC:13:GLY:N	2.47	0.48
7:QG:23:VAL:HG13	7:QG:43:PHE:HE2	1.79	0.48
7:QG:27:ILE:HA	7:QG:30:ILE:HG22	1.96	0.48
24:RA:1546:C:H5'	24:RA:1547:C:H5'	1.95	0.48
25:RB:24:G:O6	25:RB:56:G:O2'	2.27	0.48
33:RO:47:ILE:O	33:RO:53:LYS:NZ	2.47	0.48
34:RP:52:GLU:OE2	34:RP:58:THR:OG1	2.32	0.48
37:RS:15:ARG:NE	37:RS:88:ASP:OD1	2.46	0.48
37:RS:109:GLY:O	37:RS:110:LEU:HG	2.14	0.48
1:XA:294:U:OP1	1:XA:610:G:O2'	2.31	0.48
3:XC:9:GLY:HA2	3:XC:12:LEU:HG	1.96	0.48
3:XC:172:ARG:HG3	3:XC:174:PRO:HD3	1.94	0.48
7:XG:29:LYS:HG3	7:XG:105:VAL:HG11	1.96	0.48
24:YA:1794:U:H2'	24:YA:1795:C:H6	1.78	0.48
24:YA:2420:C:H5'	51:Y6:54:ILE:HD11	1.96	0.48
28:YF:63:LYS:NZ	28:YF:75:HIS:O	2.39	0.48
1:QA:977:A:N6	1:QA:1224:G:OP1	2.47	0.48
1:QA:1407:C:H2'	1:QA:1408:A:H8	1.78	0.48
13:QM:37:THR:HG21	13:QM:56:LEU:HA	1.96	0.48
24:RA:1359:A:OP2	24:RA:1371:G:N2	2.43	0.48
24:RA:1416:G:H2'	24:RA:1417:C:C6	2.49	0.48
24:RA:2707:G:H2'	24:RA:2708:G:H8	1.78	0.48
47:R2:10:LEU:HG	47:R2:14:ARG:HE	1.79	0.48
4:XD:96:LEU:HD13	4:XD:139:ARG:HE	1.79	0.48
10:XJ:84:GLN:HA	10:XJ:88:LEU:HD13	1.96	0.48
11:XK:57:THR:HG22	11:XK:59:TYR:H	1.79	0.48
24:YA:270(H):C:H2'	24:YA:270(I):G:C8	2.48	0.48
24:YA:385:C:O2'	24:YA:388:G:N2	2.47	0.48
24:YA:1252:G:N2	39:YU:37:GLU:OE2	2.44	0.48
24:YA:1754:C:N3	24:YA:2716:U:O2'	2.46	0.48
24:YA:2071:A:H2'	24:YA:2072:G:H8	1.79	0.48
24:YA:2773:C:OP1	27:YE:164:ARG:NE	2.40	0.48
25:YB:30:C:O2'	25:YB:57:A:N1	2.45	0.48
29:YG:58:GLN:O	29:YG:62:LEU:HG	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:YZ:128:VAL:HG23	44:YZ:161:VAL:HG22	1.96	0.48
2:QB:33:TYR:HB3	2:QB:41:ILE:HG13	1.95	0.48
2:QB:169:LYS:NZ	2:QB:191:ASP:OD2	2.46	0.48
24:RA:37:C:H2'	24:RA:38:A:H8	1.79	0.48
24:RA:964:C:O2'	24:RA:2273:A:N3	2.39	0.48
24:RA:1590:U:H2'	24:RA:1591:G:C8	2.49	0.48
24:RA:1651:G:H4'	36:RR:39:PRO:HG2	1.95	0.48
24:RA:2642:G:H5'	32:RN:78:TYR:CD2	2.49	0.48
26:RD:25:THR:HG22	26:RD:82:ILE:H	1.78	0.48
30:RH:79:VAL:HG12	30:RH:136:ILE:HD11	1.96	0.48
32:RN:39:ARG:HB2	32:RN:48:MET:HE1	1.96	0.48
44:RZ:54:HIS:HB3	44:RZ:101:PRO:HD3	1.95	0.48
1:XA:656:C:O2	15:XO:28:GLN:NE2	2.45	0.48
14:XN:39:LEU:HD12	14:XN:44:LEU:HB3	1.95	0.48
18:XR:74:ARG:HD3	18:XR:81:PHE:HA	1.96	0.48
24:YA:1186:G:H2'	24:YA:1187:G:O4'	2.14	0.48
1:QA:559:A:H4'	1:QA:560:U:H3'	1.96	0.47
1:QA:1024:G:H4'	1:QA:1024:G:OP1	2.14	0.47
13:QM:31:LYS:HD3	13:QM:34:LEU:HD21	1.95	0.47
23:QX:8:A:H2'	23:QX:9:G:C8	2.49	0.47
24:RA:1454:U:O2'	24:RA:1455:G:N7	2.43	0.47
24:RA:1646:C:H5"	24:RA:1647:G:H5"	1.95	0.47
24:RA:2749:A:OP2	24:RA:2750:A:O2'	2.24	0.47
33:RO:88:ASN:OD1	33:RO:92:GLU:N	2.39	0.47
1:XA:324:G:OP1	20:XT:22:ARG:NE	2.46	0.47
1:XA:627:G:H2'	1:XA:628:G:C8	2.49	0.47
6:XF:27:GLN:O	6:XF:30:LEU:HG	2.13	0.47
9:XI:21:PRO:HA	9:XI:59:PHE:HA	1.96	0.47
14:XN:4:LYS:HA	14:XN:7:ILE:HG12	1.96	0.47
24:YA:14:A:H8	24:YA:14:A:O5'	1.97	0.47
24:YA:662:G:H2'	24:YA:663:G:H8	1.79	0.47
24:YA:1310:G:OP2	52:Y7:9:ARG:NE	2.34	0.47
24:YA:2070:G:H2'	24:YA:2071:A:H8	1.77	0.47
24:YA:2693:A:H2'	24:YA:2694:G:H8	1.79	0.47
37:YS:34:HIS:ND1	37:YS:53:SER:OG	2.39	0.47
1:QA:181:G:HO2'	1:QA:182:U:P	2.36	0.47
1:QA:263:A:OP1	20:QT:79:ARG:NH1	2.47	0.47
1:QA:1355:G:H2'	1:QA:1356:G:H8	1.78	0.47
1:QA:1512:U:H2'	1:QA:1513:A:C8	2.49	0.47
11:QK:62:GLN:HG3	11:QK:93:GLN:HB3	1.96	0.47
24:RA:37:C:H2'	24:RA:38:A:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2319:G:N1	24:RA:2334:G:OP2	2.41	0.47
26:RD:148:GLU:HB2	26:RD:151:LYS:HD2	1.97	0.47
1:XA:509:A:N3	1:XA:543:C:O2'	2.38	0.47
19:XS:32:LYS:HA	19:XS:50:ALA:HB3	1.95	0.47
24:YA:251:A:C5	24:YA:252:G:H1'	2.49	0.47
24:YA:1140:C:OP2	32:YN:66:LYS:NZ	2.42	0.47
24:YA:2698:U:H2'	24:YA:2699:C:C6	2.49	0.47
27:YE:23:VAL:HG12	27:YE:173:VAL:HG21	1.95	0.47
27:YE:176:ILE:HB	27:YE:181:LEU:HB2	1.96	0.47
34:YP:47:ASP:OD2	34:YP:50:ARG:NH2	2.47	0.47
42:YX:5:TYR:HD2	47:Y2:29:LYS:HB2	1.79	0.47
50:Y5:49:CYS:O	50:Y5:56:LYS:HE2	2.14	0.47
1:QA:244:U:H4'	1:QA:245:C:O5'	2.14	0.47
1:QA:437:U:H2'	1:QA:438:G:O4'	2.14	0.47
1:QA:1009:G:H1	1:QA:1020:U:H3	1.62	0.47
1:QA:1352:C:H2'	1:QA:1353:G:C8	2.49	0.47
19:QS:64:GLU:OE1	49:R4:58:ARG:NH1	2.47	0.47
24:RA:729:G:OP2	26:RD:13:ARG:HD3	2.15	0.47
24:RA:729:G:O2'	24:RA:763:G:H4'	2.14	0.47
24:RA:1525:G:H2'	24:RA:1526:G:H8	1.80	0.47
24:RA:2832:U:H4'	24:RA:2833:G:H5"	1.97	0.47
25:RB:111:U:H2'	25:RB:112:G:H8	1.79	0.47
28:RF:116:ASP:OD2	34:RP:1:MET:N	2.34	0.47
1:XA:407:G:H2'	1:XA:408:A:C8	2.49	0.47
2:XB:235:SER:O	2:XB:237:ALA:N	2.45	0.47
5:XE:10:MET:HB3	5:XE:32:VAL:HG12	1.96	0.47
14:XN:24:CYS:HB2	14:XN:27:CYS:SG	2.54	0.47
24:YA:38:A:H2'	24:YA:39:C:C6	2.50	0.47
24:YA:270(V):G:H2'	24:YA:270(W):G:H8	1.80	0.47
24:YA:439:G:H2'	24:YA:440:G:C8	2.49	0.47
24:YA:617:G:OP1	28:YF:40:GLN:NE2	2.47	0.47
24:YA:689:A:H2'	24:YA:690:G:C8	2.50	0.47
24:YA:831:G:O2'	34:YP:38:GLN:OE1	2.32	0.47
24:YA:1882:C:H3'	24:YA:1883:G:H8	1.79	0.47
24:YA:2610:C:H4'	24:YA:2611:U:OP2	2.13	0.47
24:YA:2728:U:H2'	24:YA:2729:G:C8	2.49	0.47
29:YG:65:GLY:HA3	49:Y4:9:LEU:HD21	1.95	0.47
44:YZ:45:ASP:OD1	44:YZ:49:ARG:NE	2.47	0.47
1:QA:481:G:O2'	1:QA:482:A:O5'	2.33	0.47
1:QA:1034:G:H2'	1:QA:1035:A:C8	2.50	0.47
1:QA:1223:C:P	1:QA:1224:G:H2'	2.55	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QC:20:SER:OG	3:QC:22:TRP:NE1	2.46	0.47
7:QG:72:ARG:O	7:QG:91:VAL:HG12	2.13	0.47
8:QH:49:GLU:OE2	8:QH:62:TYR:OH	2.27	0.47
11:QK:43:SER:HB3	11:QK:68:ALA:HB2	1.95	0.47
17:QQ:43:LEU:HD21	17:QQ:68:ARG:HH21	1.79	0.47
24:RA:121:G:H4'	24:RA:149:A:H5'	1.96	0.47
24:RA:746:A:O2'	24:RA:2611:U:O2'	2.30	0.47
24:RA:834:C:H2'	24:RA:835:A:C8	2.48	0.47
24:RA:1278:A:H2'	24:RA:1279:G:H8	1.78	0.47
24:RA:1309:G:HO2'	24:RA:1611:C:HO2'	1.62	0.47
24:RA:1686:C:H3'	24:RA:1687:G:H8	1.79	0.47
24:RA:2522:U:H3	24:RA:2543:G:H1	1.62	0.47
28:RF:200:GLU:OE2	28:RF:200:GLU:N	2.43	0.47
29:RG:83:ARG:HD2	29:RG:84:LYS:H	1.79	0.47
1:XA:45:U:H2'	1:XA:46:G:H8	1.80	0.47
1:XA:922:G:H2'	1:XA:923:A:C8	2.50	0.47
4:XD:138:TYR:OH	4:XD:141:ARG:NH2	2.47	0.47
7:XG:75:VAL:HA	7:XG:88:PRO:HA	1.96	0.47
13:XM:91:ARG:HH11	13:XM:96:LEU:HD22	1.79	0.47
24:YA:249:C:H5'	24:YA:2394:C:O2'	2.15	0.47
24:YA:1283:G:N2	24:YA:1286:A:OP2	2.47	0.47
24:YA:2692:C:H2'	24:YA:2693:A:H8	1.79	0.47
27:YE:38:THR:OG1	27:YE:40:GLU:OE1	2.31	0.47
52:Y7:13:ALA:HB2	52:Y7:46:VAL:HG11	1.97	0.47
1:QA:398:C:H2'	1:QA:399:G:H8	1.79	0.47
4:QD:127:THR:HA	4:QD:132:ARG:HA	1.97	0.47
5:QE:98:THR:HB	5:QE:117:ASP:HB3	1.96	0.47
11:QK:21:ILE:HB	11:QK:84:VAL:HG23	1.96	0.47
12:QL:32:PHE:HD2	12:QL:86:ARG:HA	1.80	0.47
24:RA:593:G:H2'	24:RA:594:U:C6	2.50	0.47
24:RA:639:U:H2'	24:RA:640:C:C6	2.50	0.47
24:RA:678:C:H2'	24:RA:679:C:C6	2.49	0.47
24:RA:796:C:H2'	24:RA:797:C:C6	2.49	0.47
24:RA:1427:A:H4'	24:RA:1428:C:O5'	2.14	0.47
24:RA:2246:G:H2'	24:RA:2247:A:H8	1.79	0.47
24:RA:2327:A:H2'	24:RA:2328:A:C8	2.49	0.47
28:RF:102:PRO:HB2	28:RF:105:VAL:HG23	1.96	0.47
28:RF:125:LEU:HA	28:RF:194:MET:O	2.15	0.47
32:RN:26:LEU:O	32:RN:30:ILE:HG13	2.14	0.47
1:XA:501:C:H2'	1:XA:502:G:C8	2.49	0.47
1:XA:950:U:H2'	1:XA:951:G:H8	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1287:A:H2	1:XA:1353:G:H1'	1.77	0.47
2:XB:16:HIS:HD2	2:XB:210:SER:HA	1.80	0.47
3:XC:32:LEU:HD13	3:XC:59:ARG:HD3	1.96	0.47
24:YA:138:G:H22	42:YX:44:GLU:CD	2.23	0.47
24:YA:363(D):G:H2'	24:YA:363(E):U:C6	2.49	0.47
24:YA:949:C:H2'	24:YA:950:G:C8	2.50	0.47
24:YA:2514:U:H2'	24:YA:2515:C:C6	2.50	0.47
53:Y8:29:LYS:H	53:Y8:29:LYS:HG2	1.44	0.47
1:QA:171:A:H2'	1:QA:172:A:C8	2.50	0.47
1:QA:323:U:H2'	1:QA:324:G:O4'	2.15	0.47
24:RA:439:G:H2'	24:RA:440:G:C8	2.50	0.47
24:RA:489:G:N2	24:RA:1321:A:OP1	2.48	0.47
24:RA:534:U:H2'	24:RA:535:C:C6	2.50	0.47
24:RA:823:G:H2'	24:RA:824:A:H8	1.79	0.47
24:RA:1509:C:H3'	24:RA:1510:A:H4'	1.96	0.47
27:RE:36:ARG:NH1	27:RE:85:ASN:OD1	2.44	0.47
1:XA:486:U:H2'	1:XA:487:A:C8	2.49	0.47
1:XA:489:C:H2'	1:XA:490:G:H8	1.79	0.47
24:YA:414:C:H2'	24:YA:415:A:H8	1.80	0.47
24:YA:459:U:H2'	24:YA:460:A:H8	1.79	0.47
24:YA:680:G:H2'	24:YA:681:G:C8	2.49	0.47
24:YA:724:U:H2'	24:YA:725:G:O4'	2.14	0.47
24:YA:1149:G:H2'	24:YA:1150:C:C6	2.50	0.47
24:YA:1157:G:C2'	24:YA:1158:C:H5'	2.45	0.47
24:YA:1427:A:H4'	24:YA:1428:C:O5'	2.13	0.47
24:YA:1454:U:O2'	24:YA:1455:G:N7	2.41	0.47
24:YA:2340:G:H2'	24:YA:2341:G:H8	1.80	0.47
24:YA:2475:C:H42	24:YA:2529:G:H22	1.62	0.47
27:YE:20:ALA:N	33:YO:72:PRO:O	2.41	0.47
31:YI:79:ILE:HB	31:YI:142:VAL:HA	1.94	0.47
38:YT:123:GLN:O	38:YT:125:ARG:N	2.47	0.47
1:QA:426:G:OP1	4:QD:38:TYR:OH	2.25	0.47
1:QA:647:C:H2'	1:QA:648:A:H8	1.79	0.47
5:QE:121:LYS:HZ3	5:QE:122:GLU:H	1.61	0.47
13:QM:87:TYR:HB3	19:QS:73:GLU:HG3	1.97	0.47
24:RA:281:G:H21	24:RA:359:A:H62	1.61	0.47
24:RA:699:A:H62	24:RA:733:G:H21	1.62	0.47
24:RA:923:C:H2'	24:RA:924:C:C6	2.50	0.47
24:RA:1062:G:H2'	24:RA:1063:G:C8	2.49	0.47
24:RA:1114:G:H2'	24:RA:1115:G:C8	2.50	0.47
24:RA:1116:C:H2'	24:RA:1117:G:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2156:G:O6	24:RA:2157:G:N2	2.43	0.47
24:RA:2500:U:O2'	24:RA:2504:U:OP1	2.27	0.47
24:RA:2836:U:H2'	24:RA:2837:G:C8	2.49	0.47
36:RR:104:ARG:HE	36:RR:111:LEU:HD21	1.80	0.47
46:R1:60:PHE:HE1	46:R1:87:PRO:HG3	1.80	0.47
1:XA:324:G:H5"	20:XT:70:SER:CB	2.45	0.47
1:XA:377:G:H2'	1:XA:378:G:C8	2.50	0.47
1:XA:438:G:H4'	4:XD:123:HIS:CG	2.50	0.47
1:XA:452:A:N6	1:XA:480:U:C2	2.79	0.47
1:XA:685:G:OP1	11:XK:11:LYS:NZ	2.46	0.47
1:XA:891:U:H2'	1:XA:892:A:H8	1.80	0.47
3:XC:70:VAL:HG12	3:XC:72:LYS:H	1.80	0.47
17:XQ:19:VAL:O	17:XQ:44:ALA:N	2.40	0.47
24:YA:363:G:H2'	24:YA:363(A):A:H8	1.79	0.47
24:YA:924:C:H2'	24:YA:925:C:C6	2.49	0.47
24:YA:1028:A:H2'	24:YA:1029:A:C8	2.49	0.47
24:YA:1165:U:H2'	24:YA:1166:C:C6	2.49	0.47
24:YA:2040:C:H2'	24:YA:2041:U:C6	2.50	0.47
27:YE:50:GLY:HA2	27:YE:77:ILE:HA	1.97	0.47
31:YI:76:THR:OG1	31:YI:139:GLN:NE2	2.44	0.47
32:YN:7:LYS:HD3	32:YN:8:GLN:H	1.79	0.47
32:YN:58:ASP:OD1	32:YN:58:ASP:N	2.42	0.47
33:YO:28:SER:OG	33:YO:29:ASN:N	2.48	0.47
39:YU:28:ARG:NH1	39:YU:38:THR:OG1	2.44	0.47
1:QA:707:C:H4'	11:QK:20:TYR:CD2	2.50	0.47
1:QA:1250:A:H2	1:QA:1370:G:H1'	1.80	0.47
9:QI:32:ASP:HB3	9:QI:35:GLU:HG2	1.97	0.47
12:QL:32:PHE:CD2	12:QL:86:ARG:HA	2.50	0.47
24:RA:550:G:H2'	24:RA:551:G:H8	1.80	0.47
24:RA:2051:A:H5'	24:RA:2578:G:O4'	2.14	0.47
24:RA:2100:G:H2'	24:RA:2101:G:C8	2.49	0.47
24:RA:2233:U:H2'	24:RA:2234:G:C8	2.50	0.47
24:RA:2591:C:H2'	24:RA:2592:G:C8	2.50	0.47
24:RA:2591:C:H2'	24:RA:2592:G:H8	1.79	0.47
24:RA:2788:C:O2'	24:RA:2809:A:N3	2.47	0.47
24:RA:2857:G:N2	24:RA:2860:A:OP2	2.38	0.47
1:XA:596:C:OP2	1:XA:597:G:OP2	2.32	0.47
1:XA:1463:C:H2'	1:XA:1464:G:H8	1.79	0.47
24:YA:264:C:C2'	24:YA:265:A:H5"	2.44	0.47
24:YA:271(D):G:H2'	24:YA:272:G:C8	2.50	0.47
24:YA:358:U:H2'	24:YA:359:A:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2061:G:H5”	24:YA:2503:A:C2	2.50	0.47
24:YA:2099:U:O2	24:YA:2190:G:N2	2.40	0.47
24:YA:2115:G:N2	24:YA:2164:C:OP2	2.47	0.47
26:YD:16:MET:HG3	26:YD:207:GLY:HA3	1.97	0.47
1:QA:1043:C:H2’	1:QA:1044:A:C8	2.50	0.47
1:QA:1238:A:H62	1:QA:1301:U:H3	1.62	0.47
6:QF:47:ARG:NH2	6:QF:56:PRO:O	2.48	0.47
10:QJ:41:PRO:HG2	10:QJ:43:ARG:HH12	1.80	0.47
13:QM:79:LYS:O	13:QM:79:LYS:NZ	2.47	0.47
24:RA:29:U:H2’	24:RA:30:G:C8	2.48	0.47
24:RA:186:G:H2’	24:RA:187:G:H8	1.79	0.47
24:RA:634:C:H2’	24:RA:635:C:C6	2.49	0.47
24:RA:907:U:O2’	35:RQ:101:ARG:NH2	2.45	0.47
24:RA:2130:U:H2’	24:RA:2131:G:C8	2.49	0.47
38:RT:124:ASP:OD2	38:RT:124:ASP:N	2.48	0.47
47:R2:9:GLN:HE22	47:R2:60:LEU:HD21	1.78	0.47
1:XA:677:U:O2	1:XA:777:A:O2’	2.33	0.47
1:XA:762:C:H2’	1:XA:763:G:H8	1.78	0.47
1:XA:1253:G:H4’	10:XJ:46:ARG:NH1	2.29	0.47
2:XB:145:LEU:HD13	2:XB:145:LEU:HA	1.54	0.47
24:YA:532:A:H4’	24:YA:533:G:C8	2.50	0.47
24:YA:1826:G:OP1	26:YD:224:ALA:N	2.46	0.47
24:YA:2502:G:H5”	24:YA:2503:A:H5”	1.97	0.47
24:YA:2804:C:H2’	24:YA:2805:G:C8	2.50	0.47
24:YA:2853:C:H2’	24:YA:2854:G:C8	2.49	0.47
36:YR:38:VAL:HG12	36:YR:112:ALA:HB2	1.97	0.47
40:YV:23:GLU:OE2	40:YV:89:GLN:NE2	2.40	0.47
40:YV:52:VAL:O	40:YV:53:GLU:HG2	2.15	0.47
1:QA:1066:C:H3’	1:QA:1067:A:C8	2.50	0.47
1:QA:1329:A:N7	21:QU:7:ARG:NH2	2.61	0.47
13:QM:16:ASP:N	13:QM:16:ASP:OD1	2.47	0.47
24:RA:576:U:OP1	24:RA:2503:A:OP1	2.32	0.47
24:RA:674:G:H1’	28:RF:74:ARG:HD3	1.97	0.47
24:RA:1167:U:H2’	24:RA:1168:G:H8	1.79	0.47
25:RB:77:U:P	44:RZ:19:ARG:HH22	2.38	0.47
26:RD:158:ALA:O	26:RD:196:VAL:HG21	2.15	0.47
37:RS:83:LYS:HE2	37:RS:109:GLY:HA3	1.97	0.47
1:XA:287:U:H2’	1:XA:288:A:H8	1.80	0.47
1:XA:552:U:H2’	1:XA:553:A:C8	2.50	0.47
1:XA:745:C:OP1	1:XA:851:G:O2’	2.33	0.47
5:XE:135:THR:O	5:XE:139:LEU:HG	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:270(R):G:H2'	24:YA:270(S):G:H8	1.80	0.47
24:YA:305:U:H2'	24:YA:306:U:C6	2.50	0.47
24:YA:441:U:H2'	24:YA:442:G:C8	2.50	0.47
24:YA:634:C:H2'	24:YA:635:C:C6	2.50	0.47
24:YA:1204:A:O2'	24:YA:1205:U:O5'	2.30	0.47
24:YA:2306:C:H2'	24:YA:2307:G:N2	2.30	0.47
24:YA:2749:A:OP1	30:YH:4:ILE:HG23	2.15	0.47
24:YA:2808:U:C2	24:YA:2892:A:N6	2.83	0.47
45:Y0:27:GLU:HG3	45:Y0:68:GLU:HA	1.96	0.47
1:QA:318:G:H2'	1:QA:319:G:H8	1.79	0.46
1:QA:782:A:H62	1:QA:800:G:N2	2.10	0.46
1:QA:790:A:H2'	1:QA:791:G:C8	2.49	0.46
1:QA:1325:C:H4'	21:QU:17:THR:HG21	1.97	0.46
3:QC:62:ASP:O	3:QC:97:LYS:HB3	2.15	0.46
4:QD:64:LEU:HD12	4:QD:198:VAL:HG11	1.97	0.46
13:QM:49:THR:HG22	13:QM:51:ALA:H	1.80	0.46
24:RA:84:A:OP2	43:RY:97:ARG:NH2	2.48	0.46
24:RA:822:U:H2'	24:RA:823:G:C8	2.50	0.46
24:RA:1050:A:H2'	24:RA:1051:G:O4'	2.15	0.46
24:RA:1141:U:H1'	24:RA:1142(A):A:C6	2.50	0.46
24:RA:1666:G:N3	33:RO:3:GLN:NE2	2.63	0.46
24:RA:2025:C:H2'	24:RA:2026:C:C6	2.49	0.46
24:RA:2102:U:H2'	24:RA:2103:C:C6	2.50	0.46
24:RA:2291:U:O2'	24:RA:2374:C:O2	2.33	0.46
26:RD:247:ALA:HA	26:RD:253:GLN:HA	1.96	0.46
43:RY:77:PRO:HD3	43:RY:106:LEU:HD13	1.97	0.46
1:XA:1279:A:O2'	1:XA:1282:C:N4	2.49	0.46
2:XB:12:GLU:N	2:XB:12:GLU:OE2	2.48	0.46
4:XD:105:VAL:HG23	4:XD:117:ALA:HB1	1.97	0.46
6:XF:25:ILE:O	6:XF:28:ARG:HG3	2.15	0.46
24:YA:86:C:H4'	24:YA:104:U:H1'	1.97	0.46
24:YA:1136:G:H2'	24:YA:1137:G:C8	2.50	0.46
24:YA:1824:G:N3	26:YD:254:THR:OG1	2.47	0.46
29:YG:109:VAL:HG13	49:Y4:33:VAL:HG21	1.98	0.46
1:QA:737:A:H2'	1:QA:738:C:C6	2.49	0.46
1:QA:1111:A:N1	3:QC:177:THR:HG22	2.31	0.46
12:QL:46:LYS:HG3	12:QL:48:PRO:HD3	1.97	0.46
24:RA:44:A:H2'	24:RA:45:G:C8	2.50	0.46
24:RA:1539:G:H2'	24:RA:1540:G:H8	1.81	0.46
24:RA:2023:G:H5'	24:RA:2617:C:H4'	1.97	0.46
24:RA:2245:U:C5'	24:RA:2246:G:H5'	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2461:C:H2'	24:RA:2462:U:C6	2.50	0.46
24:RA:2471:C:H3'	24:RA:2472:G:H8	1.80	0.46
24:RA:2870:C:H2'	24:RA:2871:C:O4'	2.15	0.46
1:XA:280:C:H3'	1:XA:281:G:H5'	1.97	0.46
1:XA:851:G:H2'	1:XA:852:G:C8	2.50	0.46
13:XM:13:LYS:HB3	13:XM:44:ARG:HH21	1.80	0.46
24:YA:363(B):G:H2'	24:YA:363(C):G:C8	2.51	0.46
24:YA:1055:G:O2'	24:YA:1085:A:N1	2.39	0.46
24:YA:2443:C:H2'	24:YA:2444:G:H8	1.79	0.46
24:YA:2816:C:H2'	24:YA:2817:G:H8	1.80	0.46
1:QA:664:G:H22	1:QA:741:G:H1	1.62	0.46
24:RA:226:G:H2'	24:RA:227:A:C8	2.51	0.46
24:RA:232:G:OP2	24:RA:232:G:H8	1.99	0.46
24:RA:1084:A:H5"	24:RA:1085:A:C8	2.50	0.46
24:RA:2361:A:O5'	53:R8:27:THR:OG1	2.33	0.46
33:RO:98:VAL:HG12	33:RO:117:LEU:HB3	1.97	0.46
1:XA:92:G:H2'	1:XA:93:U:C2	2.50	0.46
1:XA:188:U:H2'	1:XA:189:U:H5"	1.98	0.46
1:XA:1151:A:H2'	1:XA:1152:A:H8	1.79	0.46
1:XA:1435:G:H2'	1:XA:1436:U:C6	2.50	0.46
2:XB:84:GLU:HB3	2:XB:219:VAL:HG21	1.97	0.46
5:XE:105:VAL:HG13	5:XE:106:PRO:HD3	1.96	0.46
5:XE:137:GLU:OE1	5:XE:140:ARG:NH1	2.48	0.46
7:XG:122:HIS:HA	7:XG:125:MET:HE2	1.97	0.46
10:XJ:79:ARG:HE	10:XJ:82:ILE:HD12	1.80	0.46
11:XK:17:GLY:HA2	11:XK:35:PRO:HD3	1.97	0.46
24:YA:857:C:OP1	45:Y0:69:PHE:HD2	1.99	0.46
24:YA:2199:A:OP1	46:Y1:50:ARG:NH2	2.48	0.46
26:YD:44:ASN:HB3	26:YD:49:ILE:HA	1.97	0.46
28:YF:77:ASP:OD1	28:YF:77:ASP:N	2.46	0.46
1:QA:711:G:H2'	1:QA:712:A:H8	1.79	0.46
24:RA:65:C:H2'	24:RA:66:C:H6	1.80	0.46
24:RA:414:C:H2'	24:RA:415:A:C8	2.50	0.46
24:RA:1654:A:P	36:RR:2:ARG:HG2	2.56	0.46
24:RA:1657:C:O3'	27:RE:133:LYS:CG	2.48	0.46
24:RA:2572:A:H2'	27:RE:144:ARG:HD3	1.97	0.46
24:RA:2693:A:H2'	24:RA:2694:G:H8	1.80	0.46
26:RD:72:LYS:HG3	26:RD:97:TYR:CE2	2.51	0.46
29:RG:31:VAL:O	29:RG:33:ARG:NH1	2.40	0.46
29:RG:33:ARG:H	29:RG:162:THR:HG1	1.59	0.46
1:XA:22:G:H2'	1:XA:23:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:753:A:H4'	1:XA:754:C:O5'	2.14	0.46
24:YA:767:U:H2'	24:YA:768:G:H8	1.81	0.46
24:YA:1353:A:H2'	24:YA:1354:A:C8	2.50	0.46
24:YA:2612:C:OP2	50:Y5:2:ALA:N	2.48	0.46
27:YE:49:LEU:HA	27:YE:49:LEU:HD12	1.71	0.46
36:YR:56:LYS:HE3	36:YR:88:ARG:HA	1.98	0.46
40:YV:38:LEU:HD11	40:YV:57:VAL:HG12	1.97	0.46
43:YY:1:MET:HE3	43:YY:1:MET:HB2	1.82	0.46
1:QA:186:C:O2'	20:QT:85:MET:SD	2.65	0.46
1:QA:328:C:H4'	1:QA:329:A:H5'	1.97	0.46
1:QA:703:G:H4'	1:QA:704:A:O5'	2.14	0.46
1:QA:735:C:H5'	18:QR:71:LYS:HE3	1.98	0.46
2:QB:178:ARG:HA	2:QB:178:ARG:HD3	1.69	0.46
13:QM:92:HIS:CE1	13:QM:98:VAL:HG21	2.50	0.46
24:RA:511:U:H4'	24:RA:1235:G:H4'	1.97	0.46
24:RA:526:A:OP1	24:RA:527:C:OP1	2.33	0.46
24:RA:638:G:H2'	24:RA:639:U:C6	2.50	0.46
24:RA:1539:G:H2'	24:RA:1540:G:C8	2.51	0.46
24:RA:2246:G:H2'	24:RA:2247:A:C8	2.51	0.46
40:RV:38:LEU:HD21	40:RV:57:VAL:HG13	1.96	0.46
1:XA:712:A:H2'	1:XA:713:G:C8	2.50	0.46
1:XA:1101:A:N6	2:XB:176:GLU:OE2	2.48	0.46
8:XH:9:MET:O	8:XH:13:ILE:HG12	2.15	0.46
24:YA:809:G:H2'	24:YA:810:U:C6	2.50	0.46
24:YA:1012:U:H2'	24:YA:1013:C:OP2	2.14	0.46
24:YA:2461:C:H2'	24:YA:2462:U:C6	2.50	0.46
40:YV:24:LYS:HA	40:YV:92:THR:HG23	1.96	0.46
1:QA:973:G:H3'	1:QA:974:A:H5"	1.96	0.46
1:QA:1014:A:H2'	1:QA:1015:A:C8	2.50	0.46
1:QA:1287:A:H2'	1:QA:1288:A:H8	1.80	0.46
3:QC:59:ARG:NH1	3:QC:62:ASP:H	2.12	0.46
10:QJ:13:HIS:HA	10:QJ:16:LEU:HB2	1.98	0.46
24:RA:23:G:OP1	24:RA:504:U:N3	2.40	0.46
24:RA:380:U:H2'	24:RA:381:G:C8	2.50	0.46
24:RA:514:A:H2'	24:RA:515:A:C8	2.51	0.46
24:RA:1297:C:H2'	24:RA:1298:C:H6	1.81	0.46
24:RA:2086:U:H2'	24:RA:2087:G:C8	2.51	0.46
24:RA:2341:G:H2'	24:RA:2342:C:C6	2.50	0.46
45:R0:18:ALA:O	45:R0:20:ARG:NH1	2.44	0.46
1:XA:79:G:H2'	1:XA:80:G:C8	2.50	0.46
1:XA:755:G:OP2	15:XO:65:ARG:HD2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1055:A:H62	1:XA:1200:C:H42	1.63	0.46
11:XK:86:GLY:N	11:XK:112:THR:OG1	2.46	0.46
24:YA:195:A:H5"	24:YA:196:A:O5'	2.16	0.46
24:YA:1333:C:H2'	24:YA:1334:G:H8	1.81	0.46
29:YG:81:LYS:O	29:YG:82:LEU:HB2	2.15	0.46
49:Y4:46:GLN:C	49:Y4:48:ARG:H	2.24	0.46
51:Y6:11:LEU:HB2	51:Y6:21:TYR:HB2	1.98	0.46
22:XV:54:G:O2'	22:XV:55:U:O5'	2.30	0.46
1:QA:348:G:H2'	1:QA:349:A:H8	1.80	0.46
1:QA:539:A:H2'	1:QA:540:G:H8	1.81	0.46
1:QA:1479:C:H2'	1:QA:1480:G:C8	2.51	0.46
2:QB:73:THR:O	2:QB:78:GLN:NE2	2.44	0.46
24:RA:1173:G:N2	24:RA:1175:U:O4	2.47	0.46
24:RA:1590:U:H2'	24:RA:1591:G:H8	1.80	0.46
31:RI:74:ASN:OD1	31:RI:74:ASN:N	2.47	0.46
47:R2:18:PRO:HA	47:R2:21:LEU:HB2	1.98	0.46
49:R4:40:HIS:CE1	49:R4:42:PHE:HB3	2.50	0.46
1:XA:36:C:H2'	1:XA:37:U:O4'	2.15	0.46
1:XA:312:C:H2'	1:XA:313:A:C8	2.51	0.46
1:XA:464:G:C6	1:XA:466:C:H5'	2.50	0.46
1:XA:790:A:OP1	22:XV:39:A:O2'	2.33	0.46
2:XB:192:SER:OG	2:XB:193:ASP:N	2.49	0.46
12:XL:89:ARG:HD2	12:XL:97:ARG:HA	1.97	0.46
15:XO:7:GLU:HA	15:XO:10:LYS:HD3	1.98	0.46
24:YA:1499:C:H2'	24:YA:1500:G:H8	1.81	0.46
24:YA:2086:U:H2'	24:YA:2087:G:C8	2.50	0.46
28:YF:32:LEU:HD11	28:YF:105:VAL:HG13	1.97	0.46
47:Y2:28:LYS:HD2	47:Y2:53:LEU:HD11	1.98	0.46
1:QA:224:C:H2'	1:QA:225:C:C6	2.51	0.46
19:QS:63:THR:HG22	19:QS:66:MET:HE3	1.97	0.46
24:RA:64:A:O3'	42:RX:71:GLY:HA3	2.16	0.46
24:RA:1819:A:H4'	24:RA:1820:U:O5'	2.16	0.46
24:RA:2365:G:OP1	45:R0:55:ARG:HD2	2.16	0.46
24:RA:2630:G:H2'	24:RA:2631:G:C8	2.50	0.46
39:RU:90:VAL:HG13	40:RV:39:LEU:HD22	1.97	0.46
1:XA:173:U:H5"	1:XA:197:A:O4'	2.15	0.46
1:XA:359:U:H5	1:XA:359:U:OP2	1.99	0.46
1:XA:711:G:H2'	1:XA:712:A:C8	2.51	0.46
20:XT:53:LEU:HD21	20:XT:100:ILE:HB	1.98	0.46
24:YA:834:C:H2'	24:YA:835:A:H8	1.80	0.46
24:YA:1220:A:H5'	24:YA:1221:C:OP2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:1332:G:N2	24:YA:1610:A:N7	2.56	0.46
24:YA:2406:U:C2	34:YP:72:PRO:HB2	2.51	0.46
24:YA:2476:A:H2'	24:YA:2477:C:C6	2.51	0.46
24:YA:2618:G:H21	27:YE:150:VAL:HG21	1.80	0.46
29:YG:15:VAL:HG13	29:YG:175:LEU:HB2	1.98	0.46
1:QA:1285:A:H1'	1:QA:1286:A:OP2	2.16	0.46
1:QA:1391:U:H2'	1:QA:1392:G:C8	2.51	0.46
22:QV:2:G:H2'	22:QV:3:G:C8	2.51	0.46
24:RA:84:A:N1	24:RA:98:G:O2'	2.38	0.46
24:RA:1045:A:O4'	24:RA:1111:A:N6	2.49	0.46
28:RF:124:LEU:HB3	28:RF:193:VAL:HG23	1.98	0.46
29:RG:24:GLY:O	29:RG:26:GLN:NE2	2.49	0.46
31:RI:116:LEU:HD21	31:RI:119:PRO:HA	1.98	0.46
1:XA:244:U:H4'	1:XA:245:C:C5'	2.46	0.46
1:XA:1100:C:H3'	2:XB:96:ARG:HH21	1.81	0.46
1:XA:1233:G:O2'	1:XA:1365:G:OP1	2.32	0.46
1:XA:1244:C:H2'	1:XA:1245:A:C8	2.51	0.46
1:XA:1355:G:H2'	1:XA:1356:G:C8	2.50	0.46
1:XA:1440:C:H2'	1:XA:1441:G:O4'	2.16	0.46
24:YA:270(J):G:H1	24:YA:270(P):C:H42	1.62	0.46
24:YA:363(C):G:H2'	24:YA:363(D):G:H8	1.81	0.46
24:YA:729:G:P	26:YD:13:ARG:HD3	2.55	0.46
24:YA:1191:G:OP1	34:YP:18:ARG:NH2	2.49	0.46
24:YA:1825:A:H4'	26:YD:233:HIS:HE1	1.81	0.46
35:YQ:58:PHE:HD2	35:YQ:61:GLY:HA3	1.80	0.46
45:Y0:38:VAL:HB	45:Y0:59:LEU:HB2	1.98	0.46
46:Y1:53:VAL:C	46:Y1:55:GLY:H	2.23	0.46
1:QA:106:C:H2'	1:QA:107:G:H8	1.80	0.46
1:QA:475:G:H2'	1:QA:476:G:H8	1.80	0.46
1:QA:638:G:H2'	1:QA:639:G:H8	1.80	0.46
9:QI:10:ARG:O	9:QI:13:ALA:HB3	2.17	0.46
12:QL:103:GLY:N	12:QL:107:ALA:O	2.50	0.46
14:QN:29:ARG:HH22	14:QN:42:ILE:H	1.63	0.46
24:RA:639:U:H2'	24:RA:640:C:H6	1.81	0.46
24:RA:971:C:H2'	24:RA:972:G:O4'	2.16	0.46
24:RA:2625:G:H2'	24:RA:2626:C:C6	2.51	0.46
27:RE:36:ARG:HG3	27:RE:47:VAL:HG12	1.98	0.46
1:XA:119:A:H4'	1:XA:120:A:C8	2.51	0.46
1:XA:556:C:H2'	1:XA:557:G:H8	1.81	0.46
1:XA:1323:G:H2'	1:XA:1324:A:C8	2.51	0.46
1:XA:1512:U:H2'	1:XA:1513:A:H8	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:XE:78:HIS:HB2	8:XH:104:ARG:HB3	1.98	0.46
24:YA:570:G:H2'	24:YA:2030:A:C5	2.51	0.46
24:YA:597:U:H2'	24:YA:598:G:H8	1.80	0.46
24:YA:1359:A:N6	24:YA:1372:U:N3	2.37	0.46
24:YA:2572:A:H2'	27:YE:144:ARG:HD3	1.98	0.46
36:YR:79:LEU:HD12	36:YR:83:ILE:HB	1.98	0.46
46:Y1:18:ILE:HG12	46:Y1:37:ILE:HG12	1.98	0.46
49:Y4:16:CYS:HB3	49:Y4:20:ASN:HB3	1.97	0.46
24:RA:223:A:O2'	24:RA:420:C:O2	2.34	0.45
24:RA:1435:G:H2'	24:RA:1436:G:C8	2.51	0.45
30:RH:91:GLY:HA3	30:RH:94:TYR:CD2	2.51	0.45
30:RH:137:ASP:HB3	30:RH:140:LYS:HB3	1.98	0.45
39:RU:91:ASP:C	39:RU:93:LYS:H	2.24	0.45
1:XA:997:U:H2'	1:XA:998:G:H8	1.79	0.45
1:XA:1203:C:H2'	1:XA:1204:A:H8	1.81	0.45
1:XA:1240:U:OP1	7:XG:119:ARG:NH2	2.49	0.45
8:XH:41:ARG:NH2	8:XH:123:GLU:OE2	2.48	0.45
24:YA:126:A:H61	52:Y7:42:LEU:HD12	1.81	0.45
24:YA:619:G:H3'	24:YA:620:G:H21	1.80	0.45
24:YA:963:U:H1'	24:YA:2250:G:O6	2.16	0.45
24:YA:1178:C:H2'	24:YA:1179:C:C6	2.51	0.45
27:YE:45:THR:O	27:YE:83:ASP:N	2.46	0.45
35:YQ:48:GLU:OE2	35:YQ:51:ARG:NH2	2.36	0.45
41:YW:69:LEU:HD23	41:YW:107:LEU:HD13	1.97	0.45
44:YZ:52:SER:O	44:YZ:52:SER:OG	2.29	0.45
22:XV:24:C:H2'	22:XV:25:G:C8	2.51	0.45
1:QA:10:A:H2'	1:QA:11:G:H8	1.82	0.45
1:QA:397:A:N7	1:QA:547:A:O2'	2.48	0.45
1:QA:711:G:OP2	6:QF:54:LYS:NZ	2.48	0.45
1:QA:921:U:O2'	5:QE:19:MET:O	2.29	0.45
1:QA:1118:C:H1'	1:QA:1179:A:C4	2.50	0.45
11:QK:91:ARG:O	11:QK:95:ILE:HG13	2.16	0.45
24:RA:570:G:H2'	24:RA:2030:A:C5	2.51	0.45
24:RA:840:C:H2'	24:RA:841:A:C8	2.51	0.45
24:RA:1246:A:OP1	34:RP:15:ARG:NH2	2.44	0.45
24:RA:1519:G:H3'	24:RA:1520:U:H6	1.80	0.45
24:RA:1676:A:C2	24:RA:1993:U:H5'	2.52	0.45
24:RA:1791:A:H4'	26:RD:206:LEU:HB2	1.98	0.45
24:RA:1990:C:H2'	24:RA:1991:U:C6	2.51	0.45
25:RB:37:C:O2	37:RS:95:HIS:NE2	2.49	0.45
40:RV:4:ILE:HG22	40:RV:39:LEU:HD13	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:R8:54:GLU:O	53:R8:58:ILE:HG13	2.16	0.45
1:XA:164:U:H2'	1:XA:165:C:C6	2.51	0.45
1:XA:1189:C:H5"	3:XC:5:ILE:HG21	1.99	0.45
1:XA:1228:C:OP1	13:XM:115:LYS:HG2	2.16	0.45
4:XD:104:VAL:O	4:XD:108:LEU:HG	2.16	0.45
9:XI:111:ARG:HH12	9:XI:113:LYS:HA	1.81	0.45
24:YA:593:G:H2'	24:YA:594:U:C6	2.51	0.45
24:YA:855:G:H1	24:YA:922:U:H3	1.64	0.45
24:YA:1580:A:H5"	24:YA:1581:G:C8	2.51	0.45
24:YA:2124:G:H3'	24:YA:2125:G:C8	2.50	0.45
1:QA:22:G:OP1	1:QA:561:U:H1'	2.16	0.45
1:QA:382:A:H2'	1:QA:383:A:C8	2.52	0.45
1:QA:477:G:H2'	1:QA:478:A:H8	1.80	0.45
1:QA:486:U:H2'	1:QA:487:A:C8	2.52	0.45
1:QA:1400:C:O4'	23:QX:21:G:O6	2.34	0.45
7:QG:100:ALA:O	7:QG:104:LEU:HG	2.15	0.45
24:RA:222:A:H62	24:RA:232:G:N2	2.14	0.45
24:RA:558:G:OP1	32:RN:112:LEU:N	2.50	0.45
24:RA:1464:C:O2'	24:RA:1528:A:H8	1.99	0.45
24:RA:2567:G:H2'	24:RA:2568:C:C6	2.51	0.45
25:RB:16:G:H2'	25:RB:17:C:H6	1.82	0.45
35:RQ:4:PRO:HG3	35:RQ:69:PHE:HE2	1.82	0.45
43:RY:53:PRO:C	43:RY:55:TYR:H	2.24	0.45
1:XA:139:G:H2'	1:XA:140:A:H8	1.80	0.45
1:XA:738:C:OP1	6:XF:2:ARG:NH1	2.46	0.45
1:XA:885:G:H2'	1:XA:886:G:H8	1.81	0.45
4:XD:20:TYR:CD1	4:XD:106:TYR:OH	2.65	0.45
18:XR:32:ARG:HA	18:XR:69:THR:HG21	1.98	0.45
24:YA:242:G:H1'	24:YA:243:U:OP2	2.17	0.45
24:YA:304:G:H2'	24:YA:305:U:C6	2.51	0.45
24:YA:755:C:H2'	24:YA:756:C:C6	2.51	0.45
24:YA:760:G:H2'	24:YA:761:A:O4'	2.16	0.45
24:YA:1678:G:H2'	24:YA:1679:U:H6	1.82	0.45
1:QA:711:G:H2'	1:QA:712:A:C8	2.52	0.45
1:QA:1172:C:H2'	1:QA:1173:G:C8	2.50	0.45
1:QA:1298:C:H4'	1:QA:1299:A:C4	2.52	0.45
4:QD:18:LYS:HA	4:QD:33:MET:HE3	1.98	0.45
9:QI:47:LEU:HB2	9:QI:50:LEU:HD12	1.99	0.45
24:RA:250:G:H2'	24:RA:251:A:C8	2.51	0.45
24:RA:1490:A:O2'	26:RD:99:ASP:OD1	2.34	0.45
24:RA:1825:A:H2'	24:RA:1826:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:RF:158:THR:HG23	28:RF:160:ASN:H	1.81	0.45
52:R7:13:ALA:HB2	52:R7:46:VAL:HG21	1.99	0.45
1:XA:115:G:C6	1:XA:313:A:C6	3.04	0.45
1:XA:444:C:H2'	1:XA:445:G:C8	2.52	0.45
1:XA:1167:A:H2'	1:XA:1169:A:C8	2.52	0.45
1:XA:1313:U:H2'	1:XA:1314:C:C6	2.51	0.45
1:XA:1425:U:H3	1:XA:1475:G:H1	1.64	0.45
3:XC:134:ILE:O	3:XC:138:VAL:HG23	2.16	0.45
14:XN:43:CYS:C	14:XN:45:ARG:H	2.25	0.45
24:YA:503:A:H4'	24:YA:504:U:C5'	2.46	0.45
24:YA:820:A:H2'	24:YA:821:A:C8	2.52	0.45
24:YA:1490:A:O2'	26:YD:99:ASP:OD1	2.35	0.45
24:YA:1652:A:OP1	36:YR:8:ARG:NH1	2.45	0.45
24:YA:2845:G:H2'	24:YA:2846:G:C8	2.52	0.45
37:YS:78:LEU:HD11	37:YS:108:GLY:HA3	1.98	0.45
37:YS:109:GLY:O	37:YS:110:LEU:HG	2.17	0.45
22:XV:36:G:H2'	22:XV:37:G:H8	1.81	0.45
1:QA:56:U:H2'	1:QA:57:G:H8	1.81	0.45
1:QA:59:A:H3'	1:QA:331:G:H22	1.81	0.45
1:QA:1022:G:H2'	1:QA:1023:G:C8	2.51	0.45
1:QA:1060:C:H2'	1:QA:1061:G:C8	2.51	0.45
4:QD:98:GLU:HA	4:QD:103:ASN:HD22	1.82	0.45
6:QF:97:PHE:HB2	18:QR:32:ARG:HE	1.81	0.45
24:RA:784:A:O2'	24:RA:785:G:H5"	2.15	0.45
24:RA:1267:U:H2'	24:RA:1268:A:H8	1.81	0.45
24:RA:1302:A:H5'	24:RA:1608:A:OP2	2.16	0.45
24:RA:2306:C:H2'	24:RA:2307:G:N2	2.31	0.45
24:RA:2657:A:O2'	30:RH:160:LYS:NZ	2.48	0.45
29:RG:63:ILE:HG13	29:RG:64:THR:HG23	1.97	0.45
34:RP:115:LEU:HA	34:RP:134:ALA:HB2	1.99	0.45
53:R8:50:LEU:C	53:R8:52:LYS:H	2.25	0.45
53:R8:62:LEU:HA	53:R8:64:TYR:HD2	1.81	0.45
1:XA:489:C:H5"	4:XD:132:ARG:HH22	1.81	0.45
1:XA:519:C:H2'	1:XA:520:A:C8	2.52	0.45
1:XA:950:U:H2'	1:XA:951:G:C8	2.51	0.45
4:XD:3:ARG:HD3	4:XD:118:ARG:HH21	1.80	0.45
24:YA:231:C:H3'	24:YA:232:G:C8	2.51	0.45
24:YA:746:A:O2'	24:YA:2611:U:O2'	2.25	0.45
24:YA:1297:C:H2'	24:YA:1298:C:H6	1.81	0.45
24:YA:1336:A:H2'	24:YA:1337:G:C8	2.52	0.45
24:YA:1609:A:N1	24:YA:1616:A:C6	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2377:A:H2'	24:YA:2378:A:C8	2.51	0.45
24:YA:2546:U:H4'	24:YA:2566:A:H2	1.81	0.45
33:YO:107:ARG:HG3	33:YO:112:MET:HE1	1.98	0.45
34:YP:49:ARG:HH11	53:Y8:58:ILE:HG22	1.80	0.45
48:Y3:40:THR:HG22	48:Y3:42:ALA:H	1.82	0.45
1:QA:299:G:H2'	1:QA:300:A:C8	2.52	0.45
1:QA:1443:G:H5'	1:QA:1446:A:OP2	2.17	0.45
12:QL:91:LYS:HD3	12:QL:91:LYS:HA	1.78	0.45
13:QM:39:ILE:HG21	13:QM:56:LEU:HD21	1.99	0.45
22:QV:24:C:H2'	22:QV:25:G:C8	2.52	0.45
24:RA:597:U:H2'	24:RA:598:G:C8	2.51	0.45
24:RA:1259:G:H2'	24:RA:1260:G:H8	1.81	0.45
24:RA:1292:U:H2'	24:RA:1293:C:C6	2.52	0.45
24:RA:1542:G:H5"	24:RA:1543:A:OP2	2.17	0.45
24:RA:2537:U:H2'	24:RA:2538:C:C6	2.51	0.45
34:RP:92:GLU:HA	34:RP:123:LEU:HD11	1.98	0.45
1:XA:74:C:H2'	1:XA:75:C:C6	2.51	0.45
1:XA:272:C:H2'	1:XA:273:A:C8	2.48	0.45
1:XA:1469:G:H2'	1:XA:1470:G:C8	2.52	0.45
3:XC:190:ARG:H	3:XC:195:VAL:HG13	1.82	0.45
4:XD:74:GLN:O	4:XD:78:LEU:HG	2.16	0.45
11:XK:18:ARG:HG3	11:XK:35:PRO:HA	1.98	0.45
24:YA:186:G:H2'	24:YA:187:G:H8	1.81	0.45
24:YA:270(U):C:H2'	24:YA:270(V):G:H8	1.82	0.45
24:YA:852:G:H2'	24:YA:853:G:C8	2.52	0.45
24:YA:2591:C:H2'	24:YA:2592:G:C8	2.51	0.45
47:Y2:45:SER:OG	47:Y2:46:GLN:N	2.49	0.45
1:QA:7:G:C6	1:QA:298:A:C2	3.05	0.45
1:QA:186(F):C:H2'	1:QA:187:C:O4'	2.16	0.45
1:QA:924:C:H2'	1:QA:925:G:C8	2.52	0.45
1:QA:976:G:OP2	1:QA:1358:U:O2'	2.34	0.45
1:QA:1066:C:H3'	1:QA:1067:A:H8	1.82	0.45
1:QA:1320:C:O2	19:QS:36:ARG:NH2	2.50	0.45
1:QA:1469:G:H2'	1:QA:1470:G:H8	1.82	0.45
2:QB:69:LEU:HD23	2:QB:159:PRO:HB3	1.98	0.45
4:QD:49:ARG:HD3	4:QD:50:ARG:H	1.81	0.45
9:QI:67:GLY:O	9:QI:73:GLN:NE2	2.50	0.45
24:RA:242:G:O2'	24:RA:254:G:O6	2.28	0.45
24:RA:1065:U:O2	24:RA:1074:G:N1	2.50	0.45
24:RA:1085:A:O2'	24:RA:1086:A:OP1	2.28	0.45
24:RA:1231:G:H2'	24:RA:1232:G:H8	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2064:C:H2'	24:RA:2065:C:C6	2.51	0.45
24:RA:2183:C:H2'	24:RA:2184:G:H8	1.81	0.45
24:RA:2845:G:H2'	24:RA:2846:G:H8	1.82	0.45
25:RB:28:C:H2'	25:RB:29:A:C8	2.52	0.45
25:RB:44:G:H1'	25:RB:47:C:H42	1.81	0.45
32:RN:6:PRO:HG3	32:RN:41:ASP:HB2	1.98	0.45
32:RN:27:ALA:HA	32:RN:30:ILE:HD12	1.98	0.45
35:RQ:111:GLU:OE1	35:RQ:133:ARG:NH2	2.50	0.45
49:R4:26:SER:OG	49:R4:28:LYS:O	2.34	0.45
1:XA:227:G:H2'	1:XA:228:A:C8	2.51	0.45
1:XA:686:U:H2'	1:XA:687:A:C8	2.52	0.45
1:XA:782:A:H62	1:XA:800:G:H21	1.65	0.45
1:XA:1256:A:H4'	1:XA:1258:G:C4	2.52	0.45
1:XA:1305:G:O2'	1:XA:1332:A:N6	2.50	0.45
1:XA:1427:U:H2'	1:XA:1428:A:C8	2.52	0.45
9:XI:42:ARG:NH1	9:XI:71:SER:OG	2.49	0.45
24:YA:861:A:N3	25:YB:79:C:O2'	2.50	0.45
24:YA:1063:G:H2'	24:YA:1064:C:O4'	2.17	0.45
24:YA:2059:A:H5'	24:YA:2060:A:OP2	2.17	0.45
24:YA:2215:G:H2'	24:YA:2216:G:H8	1.81	0.45
24:YA:2530:A:O2'	24:YA:2532:G:OP2	2.30	0.45
25:YB:66:A:O2'	25:YB:67:G:O5'	2.32	0.45
26:YD:108:PRO:HB3	26:YD:143:HIS:CE1	2.52	0.45
28:YF:195:ASP:OD1	28:YF:195:ASP:N	2.46	0.45
53:Y8:62:LEU:HA	53:Y8:64:TYR:HD1	1.81	0.45
1:QA:113:G:H2'	1:QA:114:U:C6	2.52	0.45
1:QA:184:G:H2'	1:QA:185:A:H8	1.82	0.45
1:QA:918:A:H2'	1:QA:919:A:C8	2.52	0.45
1:QA:1290:G:H4'	7:QG:37:ASN:HD21	1.82	0.45
7:QG:16:LEU:HD21	9:QI:45:ALA:N	2.31	0.45
8:QH:75:ARG:H	8:QH:75:ARG:HG2	1.66	0.45
24:RA:372:G:O2'	24:RA:373:U:O5'	2.32	0.45
24:RA:1206:G:H2'	24:RA:1207:C:C6	2.52	0.45
24:RA:1210:A:H4'	24:RA:1211:U:O5'	2.16	0.45
24:RA:1592:C:H2'	24:RA:1593:G:C8	2.51	0.45
24:RA:1637:A:H2'	24:RA:1638:C:C6	2.52	0.45
24:RA:1667:G:O2'	24:RA:1991:U:O4	2.34	0.45
25:RB:30:C:O2'	25:RB:57:A:N1	2.50	0.45
27:RE:143:ASN:HB2	27:RE:147:PRO:HD2	1.99	0.45
36:RR:74:LYS:O	36:RR:75:LEU:HB3	2.16	0.45
44:RZ:13:GLU:HB3	44:RZ:18:LEU:HD21	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1273:G:H3'	1:XA:1274:G:C8	2.52	0.45
21:XU:10:ARG:HA	21:XU:13:ILE:HG12	1.99	0.45
24:YA:1769:G:H2'	24:YA:1770:G:H8	1.82	0.45
24:YA:2513:G:H2'	24:YA:2514:U:C6	2.51	0.45
1:QA:639:G:H2'	1:QA:640:A:C8	2.52	0.45
1:QA:768:A:N3	1:QA:1512:U:O2'	2.50	0.45
1:QA:1145:C:H4'	1:QA:1146:A:C8	2.52	0.45
1:QA:1349:A:H62	1:QA:1373:G:H21	1.63	0.45
3:QC:189:ALA:HB3	3:QC:196:LEU:HB2	1.99	0.45
13:QM:74:VAL:O	13:QM:78:ILE:HG12	2.16	0.45
24:RA:300:A:P	43:RY:84:ARG:HH22	2.39	0.45
24:RA:1152:C:H4'	39:RU:77:SER:HA	1.98	0.45
24:RA:1336:A:H2'	24:RA:1337:G:C8	2.52	0.45
24:RA:1569:A:H2'	24:RA:1570:A:C8	2.51	0.45
24:RA:1841:U:H2'	24:RA:1842:G:H8	1.82	0.45
24:RA:2310:A:N6	29:RG:79:ASN:OD1	2.49	0.45
24:RA:2647:U:H2'	24:RA:2648:C:C6	2.52	0.45
30:RH:151:ILE:O	30:RH:153:LYS:N	2.50	0.45
44:RZ:94:GLU:HG3	44:RZ:95:PRO:HD3	1.99	0.45
1:XA:1218:C:H2'	1:XA:1219:U:C6	2.52	0.45
1:XA:1315:U:O2'	1:XA:1360:A:N3	2.44	0.45
4:XD:116:GLN:O	4:XD:120:LEU:HG	2.17	0.45
5:XE:5:ASP:N	5:XE:5:ASP:OD1	2.50	0.45
7:XG:116:ALA:O	7:XG:120:ILE:HG12	2.16	0.45
18:XR:59:SER:N	18:XR:62:GLU:OE2	2.41	0.45
24:YA:519:U:H2'	24:YA:520:G:H8	1.81	0.45
24:YA:703:U:H3	24:YA:728:G:H1	1.65	0.45
24:YA:870:A:OP1	35:YQ:6:ARG:NH2	2.46	0.45
24:YA:1201:C:H2'	24:YA:1202:C:H6	1.80	0.45
24:YA:2036:C:H2'	24:YA:2037:G:C8	2.51	0.45
24:YA:2051:A:H4'	27:YE:141:ILE:HG12	1.98	0.45
24:YA:2466:C:H5"	54:Y9:6:SER:HB3	1.99	0.45
26:YD:17:THR:HB	26:YD:205:VAL:H	1.81	0.45
29:YG:167:GLU:OE2	29:YG:167:GLU:N	2.48	0.45
1:QA:12:U:H4'	1:QA:526:C:H4'	1.99	0.45
1:QA:123:C:H2'	1:QA:124:G:H8	1.82	0.45
1:QA:281:G:H8	1:QA:281:G:OP2	2.00	0.45
1:QA:297:G:H4'	1:QA:557:G:H4'	1.99	0.45
1:QA:444:C:H2'	1:QA:445:G:C8	2.52	0.45
1:QA:743:U:H2'	1:QA:744:C:C6	2.52	0.45
1:QA:1481:U:H2'	1:QA:1482:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:QH:10:LEU:HD21	8:QH:85:ARG:HB2	1.99	0.45
24:RA:29:U:H2'	24:RA:30:G:H8	1.81	0.45
24:RA:212:G:H2'	24:RA:213:A:C8	2.51	0.45
24:RA:680:G:H2'	24:RA:681:G:C8	2.52	0.45
24:RA:1310:G:OP2	52:R7:9:ARG:NE	2.33	0.45
24:RA:1430:C:H2'	24:RA:1431:U:C6	2.52	0.45
24:RA:2867:G:O2'	24:RA:2868:A:H8	2.00	0.45
29:RG:165:THR:HG23	29:RG:168:GLU:H	1.81	0.45
31:RI:58:LEU:HA	31:RI:61:ARG:HE	1.80	0.45
32:RN:34:LEU:O	32:RN:49:GLY:HA3	2.17	0.45
36:RR:45:ARG:HH21	36:RR:97:VAL:HG21	1.81	0.45
40:RV:43:GLU:HG3	40:RV:44:LYS:H	1.82	0.45
44:RZ:163:LEU:HD22	44:RZ:167:PRO:HG3	1.98	0.45
1:XA:1510:U:H2'	1:XA:1511:G:H8	1.82	0.45
10:XJ:69:ASN:O	10:XJ:70:ARG:NE	2.49	0.45
24:YA:48:G:N2	24:YA:177:G:OP2	2.50	0.45
24:YA:262:A:N3	24:YA:430:G:O2'	2.34	0.45
24:YA:270(U):C:H2'	24:YA:270(V):G:C8	2.52	0.45
24:YA:436:C:H2'	24:YA:438:G:C8	2.51	0.45
24:YA:729:G:C5	26:YD:208:LYS:HB2	2.52	0.45
24:YA:1359:A:N6	24:YA:1372:U:C2	2.85	0.45
24:YA:2629:A:O2'	24:YA:2630:G:H5"	2.17	0.45
27:YE:92:THR:OG1	27:YE:93:VAL:N	2.49	0.45
29:YG:3:LEU:HD12	29:YG:3:LEU:HA	1.83	0.45
29:YG:118:ARG:HG3	29:YG:181:ARG:HD3	1.98	0.45
30:YH:88:LEU:HA	30:YH:130:ARG:HA	1.99	0.45
45:Y0:10:THR:HG22	45:Y0:12:ASN:H	1.82	0.45
1:QA:434:U:H2'	1:QA:435:C:C6	2.52	0.44
1:QA:1227:A:H5"	13:QM:111:LYS:NZ	2.32	0.44
4:QD:9:CYS:SG	4:QD:25:ARG:NH1	2.83	0.44
9:QI:64:THR:O	9:QI:64:THR:OG1	2.34	0.44
10:QJ:92:THR:OG1	10:QJ:93:GLY:N	2.48	0.44
13:QM:47:ASP:OD1	13:QM:47:ASP:N	2.47	0.44
24:RA:554:U:O2'	24:RA:556:G:N7	2.49	0.44
24:RA:660:G:H21	34:RP:12:ALA:HA	1.81	0.44
24:RA:872:A:H2'	24:RA:873:G:C8	2.52	0.44
24:RA:1107:G:H2'	24:RA:1108:U:H6	1.82	0.44
24:RA:1927:A:H2'	24:RA:1928:A:C8	2.52	0.44
24:RA:2647:U:H2'	24:RA:2648:C:H6	1.82	0.44
29:RG:125:PHE:HD2	29:RG:166:ASP:HB2	1.81	0.44
30:RH:85:LYS:HB3	30:RH:133:VAL:HB	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RP:37:GLY:N	34:RP:40:SER:OG	2.50	0.44
37:RS:42:ASP:O	37:RS:43:GLU:HG2	2.17	0.44
44:RZ:4:ARG:HA	44:RZ:59:LEU:H	1.83	0.44
1:XA:97:U:H2'	1:XA:99:C:C6	2.52	0.44
1:XA:704:A:OP2	1:XA:704:A:H8	2.00	0.44
1:XA:1268:A:H2'	1:XA:1269:A:C8	2.52	0.44
1:XA:1277:C:O2'	1:XA:1279:A:H1'	2.16	0.44
4:XD:122:ARG:HD3	4:XD:136:PRO:HD3	2.00	0.44
13:XM:3:ARG:O	13:XM:57:ARG:NH1	2.50	0.44
24:YA:198:C:O2'	24:YA:199:A:H5'	2.17	0.44
24:YA:1113:U:H2'	24:YA:1114:G:H8	1.82	0.44
24:YA:1292:U:H2'	24:YA:1293:C:H6	1.82	0.44
24:YA:1923:U:H2'	24:YA:1924:C:C6	2.52	0.44
25:YB:3:C:H2'	25:YB:4:C:C6	2.52	0.44
25:YB:9:G:OP1	37:YS:15:ARG:NH1	2.36	0.44
25:YB:87:G:H22	25:YB:89:G:H3'	1.81	0.44
27:YE:69:LYS:HA	27:YE:69:LYS:HD3	1.76	0.44
38:YT:30:VAL:HG23	38:YT:86:ILE:HB	1.98	0.44
41:YW:35:ILE:O	41:YW:39:THR:OG1	2.33	0.44
43:YY:14:LEU:HB2	43:YY:75:ILE:HD11	1.98	0.44
1:QA:555:C:H2'	1:QA:556:C:C6	2.52	0.44
1:QA:851:G:H2'	1:QA:852:G:H8	1.80	0.44
1:QA:1376:U:H2'	1:QA:1377:A:C8	2.52	0.44
1:QA:1419:G:H1	1:QA:1481:U:H3	1.63	0.44
3:QC:95:THR:HG22	3:QC:97:LYS:H	1.82	0.44
4:QD:131:ARG:NH1	4:QD:132:ARG:O	2.50	0.44
8:QH:21:LYS:O	8:QH:65:TYR:OH	2.34	0.44
9:QI:17:VAL:HG22	9:QI:63:ILE:HD12	1.99	0.44
24:RA:39:C:H2'	24:RA:40:C:C6	2.52	0.44
24:RA:574:C:O2	27:RE:145:LYS:NZ	2.50	0.44
24:RA:724:U:H2'	24:RA:725:G:O4'	2.17	0.44
24:RA:807:U:O2'	24:RA:2060:A:N1	2.44	0.44
24:RA:872:A:H2'	24:RA:873:G:H8	1.82	0.44
24:RA:900:A:H3'	24:RA:901:A:H8	1.82	0.44
24:RA:1408:C:H2'	24:RA:1409:C:C6	2.52	0.44
24:RA:1899:G:O2'	24:RA:1900:A:H5"	2.17	0.44
24:RA:2121:G:H2'	24:RA:2122:U:C6	2.53	0.44
24:RA:2674:G:H2'	24:RA:2675:A:C8	2.53	0.44
24:RA:2857:G:N2	24:RA:2859:G:H3'	2.32	0.44
28:RF:11:VAL:HG21	28:RF:20:LEU:HD23	1.99	0.44
35:RQ:60:ARG:HH22	44:RZ:113:ALA:HB3	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:RS:16:ASN:OD1	37:RS:19:LYS:NZ	2.50	0.44
24:YA:841:A:H2'	24:YA:842:G:H8	1.83	0.44
24:YA:923:C:H2'	24:YA:924:C:C6	2.53	0.44
24:YA:1341:U:OP1	24:YA:1397:U:N3	2.35	0.44
24:YA:2246:G:H2'	24:YA:2247:A:C8	2.52	0.44
24:YA:2577:A:O4'	50:Y5:3:LYS:HB2	2.17	0.44
24:YA:2836:U:H2'	24:YA:2837:G:H8	1.82	0.44
26:YD:254:THR:OG1	26:YD:254:THR:O	2.35	0.44
32:YN:95:PRO:C	32:YN:97:ARG:H	2.25	0.44
34:YP:84:ASN:HA	34:YP:115:LEU:O	2.18	0.44
1:QA:328:C:H1'	1:QA:329:A:OP2	2.17	0.44
1:QA:1004:A:P	1:QA:1025:U:H3	2.40	0.44
4:QD:68:TYR:CD2	4:QD:97:LEU:HD12	2.53	0.44
11:QK:96:ARG:HA	11:QK:99:GLN:HE21	1.82	0.44
24:RA:635:C:H2'	24:RA:636:G:O4'	2.17	0.44
24:RA:661:C:H5"	34:RP:15:ARG:NH2	2.31	0.44
24:RA:678:C:H2'	24:RA:679:C:H6	1.81	0.44
24:RA:923:C:H2'	24:RA:924:C:H6	1.82	0.44
24:RA:948:G:H2'	24:RA:949:C:H6	1.82	0.44
24:RA:1226:G:OP1	40:RV:69:LYS:NZ	2.33	0.44
24:RA:1389:G:H2'	24:RA:1390:U:C6	2.52	0.44
24:RA:2487:G:H2'	24:RA:2488:A:C8	2.52	0.44
54:R9:27:CYS:SG	54:R9:28:GLU:N	2.91	0.44
1:XA:109:A:C6	1:XA:326:G:C6	3.05	0.44
1:XA:312:C:H2'	1:XA:313:A:H8	1.82	0.44
1:XA:505:G:H2'	1:XA:506:G:C8	2.52	0.44
1:XA:985:C:H2'	1:XA:986:A:H8	1.82	0.44
1:XA:1314:C:H2'	1:XA:1315:U:C6	2.52	0.44
1:XA:1404:C:H2'	1:XA:1405:G:C8	2.53	0.44
2:XB:43:ASP:O	2:XB:47:THR:OG1	2.33	0.44
24:YA:970:C:H2'	24:YA:971:C:C6	2.53	0.44
24:YA:1625:C:H2'	24:YA:1626:G:O4'	2.18	0.44
24:YA:1657:C:H2'	24:YA:1658:C:H6	1.82	0.44
24:YA:1657:C:H2'	24:YA:1658:C:C6	2.52	0.44
24:YA:1889:A:H2'	24:YA:1890:A:C8	2.51	0.44
24:YA:2364:C:H2'	24:YA:2365:G:O4'	2.17	0.44
45:Y0:38:VAL:HG21	45:Y0:45:PHE:HD2	1.83	0.44
22:XV:1:C:H2'	22:XV:2:G:H8	1.81	0.44
1:QA:1175:G:H2'	1:QA:1176:A:C8	2.53	0.44
1:QA:1400:C:C4'	23:QX:21:G:C6	3.00	0.44
1:QA:1516:G:H2'	1:QA:1518:A:OP2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:QJ:51:ARG:O	14:QN:45:ARG:NH1	2.50	0.44
13:QM:18:ALA:HA	13:QM:21:TYR:HD2	1.83	0.44
15:QO:67:LEU:HD12	15:QO:78:TYR:CE1	2.53	0.44
24:RA:20:C:H2'	24:RA:21:A:H8	1.82	0.44
24:RA:956:G:H2'	24:RA:957:A:H2'	1.99	0.44
24:RA:1140:C:OP1	32:RN:23:LEU:HB3	2.17	0.44
24:RA:1181:C:H2'	24:RA:1182:A:C8	2.52	0.44
24:RA:1205:U:C4	28:RF:171:PRO:HA	2.53	0.44
24:RA:1812:A:H2'	24:RA:1813:G:H8	1.82	0.44
24:RA:2564:A:H2'	24:RA:2565:A:C8	2.52	0.44
30:RH:67:LEU:O	30:RH:71:LEU:HG	2.18	0.44
36:RR:38:VAL:HG22	36:RR:112:ALA:HB2	1.98	0.44
40:RV:44:LYS:HB3	40:RV:45:THR:H	1.52	0.44
42:RX:21:PHE:HA	42:RX:26:TYR:HE1	1.80	0.44
1:XA:107:G:H3'	1:XA:108:G:H21	1.82	0.44
1:XA:161:A:H2'	1:XA:162:A:C8	2.53	0.44
1:XA:812:C:H1'	1:XA:813:U:OP2	2.18	0.44
1:XA:1238:A:H62	1:XA:1301:U:H3	1.65	0.44
5:XE:89:ILE:HD12	5:XE:121:LYS:O	2.18	0.44
24:YA:177:G:H3'	24:YA:178:G:H8	1.81	0.44
24:YA:247:G:H4'	24:YA:386:G:C5	2.52	0.44
24:YA:659:C:H2'	24:YA:660:G:C8	2.53	0.44
24:YA:956:G:OP2	35:YQ:85:LYS:NZ	2.50	0.44
24:YA:1332:G:H8	24:YA:1332:G:H2'	1.59	0.44
24:YA:2025:C:H2'	24:YA:2026:C:C6	2.52	0.44
31:YI:30:LEU:HB3	31:YI:36:ALA:HB3	1.98	0.44
32:YN:34:LEU:HA	32:YN:34:LEU:HD13	1.77	0.44
38:YT:16:ARG:HH21	38:YT:19:LEU:HD21	1.83	0.44
39:YU:50:ARG:O	39:YU:54:LYS:NZ	2.51	0.44
1:QA:243:A:H4'	1:QA:244:U:H3'	2.00	0.44
1:QA:626:U:P	16:QP:18:ARG:HH21	2.40	0.44
1:QA:707:C:H4'	11:QK:20:TYR:HD2	1.82	0.44
1:QA:719:C:H1'	18:QR:49:LYS:HG2	1.99	0.44
1:QA:1032(A):G:H2'	1:QA:1032(B):G:C8	2.51	0.44
1:QA:1326:C:OP1	21:QU:17:THR:OG1	2.30	0.44
3:QC:174:PRO:O	3:QC:177:THR:OG1	2.35	0.44
14:QN:39:LEU:HD23	14:QN:39:LEU:HA	1.89	0.44
18:QR:32:ARG:HA	18:QR:69:THR:HG21	1.99	0.44
24:RA:16:G:H2'	24:RA:17:G:H8	1.82	0.44
24:RA:832:G:H2'	24:RA:833:U:C6	2.53	0.44
24:RA:2020:A:N7	50:R5:9:LYS:NZ	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2292:C:H2'	24:RA:2293:C:C6	2.52	0.44
24:RA:2306:C:OP2	24:RA:2307:G:H2'	2.18	0.44
24:RA:2546:U:H5"	24:RA:2547:U:H5'	1.99	0.44
24:RA:2554:U:H2'	24:RA:2555:U:C6	2.53	0.44
24:RA:2791:C:H4'	24:RA:2792:G:H5'	2.00	0.44
26:RD:108:PRO:HB3	26:RD:143:HIS:CE1	2.53	0.44
33:RO:24:VAL:HG12	33:RO:33:ALA:HB2	1.99	0.44
36:RR:74:LYS:HD2	36:RR:74:LYS:HA	1.77	0.44
1:XA:116:A:C8	1:XA:116:A:OP2	2.70	0.44
1:XA:288:A:H2'	1:XA:289:G:H4'	1.98	0.44
1:XA:381:C:H2'	1:XA:382:A:O4'	2.17	0.44
1:XA:390:C:H2'	1:XA:391:G:C8	2.53	0.44
1:XA:768:A:H4'	1:XA:1523:G:N2	2.32	0.44
1:XA:966:G:C2	22:XV:35:C:H5'	2.52	0.44
24:YA:330:A:H2	24:YA:1210:A:O2'	2.01	0.44
24:YA:507:A:H5"	24:YA:508:G:H5'	2.00	0.44
24:YA:608:A:H2'	24:YA:609:A:C8	2.52	0.44
24:YA:1394:U:O2	42:YX:16:LYS:NZ	2.50	0.44
34:YP:62:LEU:HD12	53:Y8:30:ARG:HE	1.82	0.44
53:Y8:7:HIS:HB3	53:Y8:59:LYS:HG2	1.98	0.44
1:QA:34:C:H2'	1:QA:35:G:C8	2.51	0.44
1:QA:422:C:H4'	1:QA:423:G:C4	2.52	0.44
1:QA:1002:G:H2'	1:QA:1003:G:C8	2.53	0.44
1:QA:1304:G:N2	1:QA:1334:G:O6	2.50	0.44
1:QA:1512:U:H2'	1:QA:1513:A:H8	1.83	0.44
6:QF:35:ALA:HB1	6:QF:65:VAL:HG21	2.00	0.44
9:QI:2:GLU:HG2	9:QI:20:ARG:CZ	2.47	0.44
20:QT:48:LYS:HD2	20:QT:51:GLU:HB2	2.00	0.44
23:QX:8:A:H2'	23:QX:9:G:H8	1.80	0.44
24:RA:144:C:H2'	24:RA:145:G:C8	2.52	0.44
24:RA:270(U):C:H2'	24:RA:270(V):G:H8	1.82	0.44
24:RA:1000:A:H2'	24:RA:1001:A:C8	2.52	0.44
24:RA:1149:G:H2'	24:RA:1150:C:C6	2.53	0.44
24:RA:1478:G:H1'	24:RA:1557:C:O2'	2.18	0.44
24:RA:1657:C:O2'	27:RE:133:LYS:CD	2.59	0.44
24:RA:1794:U:H2'	24:RA:1795:C:C6	2.53	0.44
24:RA:1796:U:H2'	24:RA:1797:C:C6	2.52	0.44
24:RA:1800:C:C2	24:RA:1802:A:C8	3.05	0.44
26:RD:79:VAL:HG21	26:RD:111:LEU:HD21	2.00	0.44
31:RI:79:ILE:HB	31:RI:142:VAL:HA	1.98	0.44
32:RN:30:ILE:O	32:RN:34:LEU:HG	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:944:G:N1	1:XA:1338:G:OP2	2.33	0.44
1:XA:1285:A:H1'	1:XA:1286:A:OP2	2.17	0.44
8:XH:79:VAL:HG13	8:XH:80:ILE:HD12	1.99	0.44
24:YA:144:C:H2'	24:YA:145:G:C8	2.52	0.44
24:YA:300:A:OP2	43:YY:84:ARG:NH2	2.41	0.44
24:YA:816:C:O2'	24:YA:932:G:O6	2.36	0.44
24:YA:1259:G:H2'	24:YA:1260:G:C8	2.52	0.44
24:YA:2804:C:H2'	24:YA:2805:G:H8	1.82	0.44
27:YE:31:CYS:HB3	27:YE:49:LEU:HG	1.99	0.44
51:Y6:23:THR:OG1	51:Y6:24:GLU:N	2.50	0.44
1:QA:997:U:H2'	1:QA:998:G:C8	2.53	0.44
1:QA:1010:G:H2'	1:QA:1011:G:C8	2.51	0.44
1:QA:1120:G:H2'	1:QA:1121:U:C6	2.52	0.44
2:QB:75:LYS:HE3	2:QB:75:LYS:HB3	1.84	0.44
4:QD:85:LYS:HD3	4:QD:86:LYS:H	1.83	0.44
5:QE:140:ARG:NH1	8:QH:77:GLU:OE1	2.51	0.44
6:QF:18:GLN:HA	6:QF:21:LEU:HB2	1.98	0.44
12:QL:84:LEU:O	12:QL:100:ILE:HD12	2.18	0.44
24:RA:49:A:H61	24:RA:177:G:H2'	1.83	0.44
24:RA:172:C:H2'	24:RA:173:G:C8	2.53	0.44
24:RA:193:U:N3	24:RA:203:C:O2	2.51	0.44
24:RA:250:G:OP2	34:RP:59:LEU:HD11	2.17	0.44
24:RA:1259:G:H2'	24:RA:1260:G:C8	2.52	0.44
24:RA:1571:A:H2'	24:RA:1572:A:C8	2.53	0.44
24:RA:1639:U:C2'	24:RA:1640:C:H5"	2.48	0.44
24:RA:2187:G:H2'	24:RA:2188:C:C6	2.52	0.44
24:RA:2756:U:OP2	54:R9:19:ARG:NE	2.50	0.44
26:RD:25:THR:O	26:RD:27:THR:N	2.50	0.44
1:XA:464:G:N1	1:XA:467:G:OP2	2.40	0.44
1:XA:1241:G:H2'	1:XA:1242:C:C6	2.52	0.44
1:XA:1422:G:H2'	1:XA:1423:G:H8	1.82	0.44
4:XD:154:ASN:OD1	4:XD:154:ASN:N	2.44	0.44
5:XE:84:PHE:O	5:XE:87:SER:OG	2.35	0.44
23:XX:16:C:C5	23:XX:16:C:OP2	2.70	0.44
23:XX:16:C:O5'	23:XX:16:C:C6	2.70	0.44
24:YA:433:C:H2'	24:YA:434:U:C6	2.52	0.44
24:YA:639:U:H2'	24:YA:640:C:H6	1.82	0.44
24:YA:829:A:N7	24:YA:2247:A:O2'	2.46	0.44
24:YA:1012:U:OP1	39:YU:75:ASN:ND2	2.42	0.44
24:YA:1375:C:H2'	24:YA:1376:C:H6	1.83	0.44
24:YA:1754:C:P	38:YT:96:ARG:HH12	2.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2151:G:H2'	24:YA:2152:G:C8	2.50	0.44
24:YA:2335:A:O2'	24:YA:2336:A:H2'	2.18	0.44
24:YA:2712:U:OP1	24:YA:2714:G:H4'	2.18	0.44
31:YI:123:LEU:HD23	31:YI:142:VAL:HG13	2.00	0.44
35:YQ:12:GLN:HB2	35:YQ:73:PRO:HD2	2.00	0.44
1:QA:277:C:OP2	17:QQ:41:LYS:NZ	2.51	0.44
1:QA:406:G:H2'	1:QA:407:G:H8	1.83	0.44
1:QA:436:C:H2'	1:QA:437:U:C6	2.53	0.44
1:QA:738:C:H2'	1:QA:739:C:C6	2.53	0.44
1:QA:864:A:H2'	1:QA:865:A:C8	2.53	0.44
1:QA:1054:C:O2	1:QA:1196:U:N3	2.51	0.44
1:QA:1075:C:H5"	2:QB:179:LYS:HZ1	1.82	0.44
1:QA:1198:G:H2'	1:QA:1199:U:C6	2.53	0.44
7:QG:50:ILE:HG21	7:QG:61:VAL:HG11	2.00	0.44
14:QN:24:CYS:HB3	14:QN:27:CYS:SG	2.56	0.44
24:RA:831:G:O2'	34:RP:38:GLN:OE1	2.35	0.44
24:RA:1821:A:H2'	24:RA:1822:G:H8	1.83	0.44
24:RA:2773:C:H2'	24:RA:2774:C:H6	1.83	0.44
35:RQ:45:GLN:NE2	35:RQ:91:GLU:O	2.51	0.44
37:RS:83:LYS:HD3	37:RS:84:GLN:HG3	1.99	0.44
41:RW:88:ARG:NH1	41:RW:94:ASP:OD1	2.50	0.44
51:R6:11:LEU:HB2	51:R6:21:TYR:HB2	2.00	0.44
1:XA:265:G:H4'	17:XQ:66:SER:HA	2.00	0.44
1:XA:401:C:H2'	1:XA:402:G:C8	2.53	0.44
1:XA:822:C:H2'	1:XA:823:G:H8	1.83	0.44
7:XG:72:ARG:O	7:XG:91:VAL:HG22	2.17	0.44
24:YA:428:A:H3'	24:YA:429:A:C8	2.53	0.44
24:YA:639:U:H2'	24:YA:640:C:C6	2.52	0.44
24:YA:742:G:H2'	24:YA:743:G:H8	1.83	0.44
24:YA:1542:G:H5"	24:YA:1543:A:OP2	2.18	0.44
24:YA:1568:G:H5"	26:YD:61:LEU:HD23	2.00	0.44
24:YA:1636:C:H2'	24:YA:1637:A:H8	1.82	0.44
24:YA:1694:C:H1'	24:YA:1695:G:OP2	2.18	0.44
24:YA:2692:C:H2'	24:YA:2693:A:C8	2.52	0.44
27:YE:24:THR:OG1	27:YE:186:GLY:HA2	2.18	0.44
29:YG:24:GLY:O	29:YG:26:GLN:NE2	2.50	0.44
32:YN:30:ILE:HG23	32:YN:52:VAL:HG11	2.00	0.44
33:YO:23:ARG:NH2	33:YO:28:SER:O	2.50	0.44
43:YY:33:LYS:HG3	43:YY:34:LYS:HD2	1.99	0.44
45:Y0:32:ARG:N	45:Y0:35:ASN:OD1	2.49	0.44
1:QA:337:C:H2'	1:QA:338:A:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:360:A:H2'	1:QA:361:G:C8	2.52	0.44
1:QA:427:U:OP2	1:QA:428:G:O2'	2.29	0.44
3:QC:189:ALA:O	3:QC:190:ARG:HD3	2.18	0.44
5:QE:78:HIS:HB3	8:QH:107:LEU:HD12	1.99	0.44
7:QG:94:ARG:NH1	7:QG:98:SER:OG	2.51	0.44
10:QJ:39:PRO:HA	10:QJ:70:ARG:HD3	2.00	0.44
14:QN:27:CYS:SG	14:QN:28:GLY:N	2.91	0.44
24:RA:307:G:C8	24:RA:307:G:C3'	3.00	0.44
24:RA:631:A:H5'	34:RP:65:ARG:HD3	2.00	0.44
24:RA:778:G:H5'	26:RD:48:ARG:HE	1.83	0.44
24:RA:864:G:H2'	24:RA:865:C:C6	2.53	0.44
24:RA:906:G:O2'	35:RQ:67:ARG:NH2	2.51	0.44
24:RA:1431:U:H2'	24:RA:1432:C:C6	2.53	0.44
24:RA:1467:C:H5	24:RA:1546:C:H2'	1.82	0.44
24:RA:2236:C:H2'	24:RA:2237:G:O4'	2.18	0.44
24:RA:2646:C:OP2	24:RA:2732:G:O2'	2.28	0.44
26:RD:85:ASP:OD2	26:RD:88:ARG:NH1	2.41	0.44
35:RQ:68:ILE:HD13	35:RQ:103:MET:HG2	2.00	0.44
40:RV:40:LEU:HD11	40:RV:47:VAL:HG12	1.99	0.44
44:RZ:52:SER:C	44:RZ:54:HIS:H	2.21	0.44
1:XA:191(D):U:H2'	1:XA:191(E):G:C8	2.52	0.44
1:XA:299:G:H2'	1:XA:300:A:C8	2.53	0.44
1:XA:825:G:H2'	1:XA:826:C:C6	2.53	0.44
1:XA:952:U:H2'	1:XA:953:G:C8	2.53	0.44
1:XA:1502:A:H2'	1:XA:1504:G:N7	2.33	0.44
4:XD:13:ARG:HB2	4:XD:40:PRO:HD3	2.00	0.44
14:XN:46:GLU:HG3	14:XN:47:LEU:HD22	1.99	0.44
24:YA:71:A:N3	24:YA:73:A:N6	2.66	0.44
24:YA:922:U:H2'	24:YA:923:C:H6	1.83	0.44
24:YA:2549:G:H2'	24:YA:2550:G:H8	1.83	0.44
28:YF:125:LEU:HA	28:YF:194:MET:O	2.17	0.44
31:YI:14:ASP:O	31:YI:16:GLY:N	2.43	0.44
35:YQ:111:GLU:OE1	35:YQ:133:ARG:NH2	2.51	0.44
43:YY:37:VAL:HG11	43:YY:72:VAL:HG11	2.00	0.44
50:Y5:36:CYS:CB	50:Y5:49:CYS:HB3	2.48	0.44
1:QA:106:C:H2'	1:QA:107:G:C8	2.53	0.43
1:QA:484:G:H4'	1:QA:485:G:O5'	2.17	0.43
1:QA:575:G:O2'	1:QA:821:G:H5'	2.18	0.43
1:QA:1124:G:H3'	1:QA:1145:C:N4	2.33	0.43
1:QA:1249:C:O2'	9:QI:68:GLY:O	2.29	0.43
1:QA:1320:C:H2'	1:QA:1321:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1329:A:H5"	13:QM:26:GLY:H	1.83	0.43
1:QA:1342:C:H1'	9:QI:124:GLN:HE22	1.83	0.43
1:QA:1466:C:H2'	1:QA:1467:G:O4'	2.18	0.43
1:QA:1510:U:H3	1:QA:1525:G:H1	1.65	0.43
1:QA:1516:G:N1	1:QA:1519:A:OP2	2.51	0.43
11:QK:121:PRO:O	11:QK:126:ARG:NH1	2.42	0.43
13:QM:22:ILE:N	13:QM:22:ILE:CD1	2.79	0.43
15:QO:33:THR:HG21	15:QO:85:LEU:HD12	1.99	0.43
24:RA:823:G:H2'	24:RA:824:A:C8	2.53	0.43
24:RA:1009:A:OP2	24:RA:1010:A:OP2	2.36	0.43
24:RA:1458:C:H4'	24:RA:1459:G:O4'	2.18	0.43
24:RA:1521:G:H5"	24:RA:1521:G:C8	2.49	0.43
24:RA:2676:C:H2'	24:RA:2677:G:H8	1.83	0.43
24:RA:2740:A:H2'	24:RA:2741:A:C8	2.52	0.43
32:RN:95:PRO:C	32:RN:97:ARG:H	2.26	0.43
1:XA:952:U:H2'	1:XA:953:G:H8	1.83	0.43
3:XC:58:GLU:HB2	3:XC:65:ALA:HB3	1.99	0.43
5:XE:12:LEU:HB3	5:XE:31:LEU:HB3	1.98	0.43
13:XM:105:THR:OG1	13:XM:106:ASN:N	2.42	0.43
14:XN:27:CYS:SG	14:XN:28:GLY:N	2.91	0.43
17:XQ:21:VAL:HG11	17:XQ:59:ILE:HG21	1.99	0.43
17:XQ:81:ARG:HA	17:XQ:81:ARG:HD3	1.72	0.43
18:XR:53:ARG:HA	18:XR:56:THR:HG22	2.00	0.43
19:XS:81:ARG:HA	19:XS:81:ARG:HD2	1.75	0.43
24:YA:52:A:OP2	24:YA:117:G:N1	2.49	0.43
24:YA:303:U:H2'	24:YA:304:G:C8	2.53	0.43
24:YA:1265:A:H8	24:YA:1265:A:OP1	2.01	0.43
24:YA:1267:U:H2'	24:YA:1268:A:H8	1.83	0.43
24:YA:2630:G:H2'	24:YA:2631:G:H8	1.82	0.43
25:YB:60:C:H2'	25:YB:61:G:H8	1.83	0.43
39:YU:87:GLY:O	40:YV:50:PRO:HD3	2.18	0.43
43:YY:47:LYS:NZ	43:YY:48:ALA:O	2.43	0.43
1:QA:538:G:H2'	1:QA:539:A:H8	1.83	0.43
1:QA:582:U:H5"	15:QO:68:ARG:HH22	1.83	0.43
1:QA:851:G:H2'	1:QA:852:G:C8	2.53	0.43
4:QD:20:TYR:HD2	4:QD:26:CYS:HB3	1.83	0.43
8:QH:7:ALA:HB2	8:QH:85:ARG:HD3	2.00	0.43
9:QI:4:TYR:HB2	9:QI:19:LEU:HB2	2.00	0.43
17:QQ:57:VAL:HG12	17:QQ:76:LEU:HA	2.01	0.43
24:RA:2731:G:OP1	27:RE:169:ASN:ND2	2.45	0.43
28:RF:29:ASN:HB3	28:RF:112:MET:HE1	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:RH:25:LYS:HZ2	30:RH:27:LYS:H	1.66	0.43
34:RP:97:PRO:HD3	34:RP:126:VAL:O	2.18	0.43
39:RU:50:ARG:O	39:RU:54:LYS:NZ	2.47	0.43
54:R9:11:CYS:HB2	54:R9:13:LYS:HD2	1.99	0.43
1:XA:298:A:H2'	1:XA:299:G:C8	2.53	0.43
1:XA:346:G:H1'	1:XA:347:G:H5'	2.01	0.43
1:XA:552:U:H2'	1:XA:553:A:H8	1.83	0.43
1:XA:806:C:H2'	1:XA:807:A:H8	1.82	0.43
1:XA:1022:G:H2'	1:XA:1023:G:H8	1.83	0.43
1:XA:1425:U:H2'	1:XA:1426:C:H6	1.83	0.43
12:XL:32:PHE:HE1	12:XL:86:ARG:HG3	1.84	0.43
24:YA:34:C:H5'	24:YA:35:G:OP2	2.18	0.43
24:YA:640:C:H2'	24:YA:641:C:C6	2.53	0.43
24:YA:870:A:H2'	24:YA:871:U:O4'	2.18	0.43
24:YA:1062:G:H1	24:YA:1076:C:N4	2.16	0.43
24:YA:1161:C:H2'	24:YA:1162:G:C8	2.53	0.43
24:YA:1336:A:H2'	24:YA:1337:G:H8	1.82	0.43
24:YA:2138:C:H2'	24:YA:2139:C:C6	2.53	0.43
24:YA:2292:C:H2'	24:YA:2293:C:C6	2.52	0.43
29:YG:71:THR:N	29:YG:89:GLY:O	2.51	0.43
1:QA:269:C:H2'	1:QA:270:A:C8	2.52	0.43
1:QA:551:U:H2'	1:QA:552:U:C6	2.53	0.43
1:QA:950:U:H2'	1:QA:951:G:C8	2.53	0.43
1:QA:1443:G:C6	38:RT:118:ARG:HB2	2.53	0.43
3:QC:39:ILE:O	3:QC:43:LEU:HG	2.18	0.43
6:QF:82:ARG:HG3	6:QF:84:ASN:H	1.83	0.43
8:QH:46:LYS:N	8:QH:64:LYS:HG3	2.33	0.43
14:QN:29:ARG:HH12	14:QN:41:ARG:H	1.66	0.43
15:QO:60:VAL:HA	15:QO:63:ARG:HG2	2.00	0.43
17:QQ:87:LYS:HE3	17:QQ:87:LYS:HB3	1.88	0.43
22:QV:22:A:H61	22:QV:47:G:H2'	1.82	0.43
24:RA:345:A:O2'	24:RA:347:A:N7	2.35	0.43
24:RA:851:U:OP1	48:R3:49:LYS:NZ	2.49	0.43
24:RA:2368:C:H2'	24:RA:2369:A:C8	2.51	0.43
32:RN:21:LYS:HB2	32:RN:26:LEU:HD12	2.00	0.43
33:RO:22:ILE:HB	33:RO:40:VAL:HG13	1.99	0.43
36:RR:3:HIS:O	36:RR:5:LYS:N	2.50	0.43
39:RU:87:GLY:O	40:RV:50:PRO:HD3	2.19	0.43
46:R1:53:VAL:HG13	46:R1:74:VAL:HG23	1.99	0.43
1:XA:992:U:O2'	1:XA:993:G:OP2	2.26	0.43
24:YA:244:A:O2'	34:YP:74:GLU:N	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:297:C:H2'	24:YA:298:G:O4'	2.18	0.43
24:YA:468:G:H5"	28:YF:60:SER:HB2	2.00	0.43
24:YA:547:A:H2'	24:YA:548:A:C8	2.53	0.43
24:YA:881:G:H3'	24:YA:882:G:H8	1.83	0.43
24:YA:1193:G:H2'	24:YA:1194:A:C8	2.53	0.43
24:YA:1266:G:O2'	24:YA:2012:G:O6	2.36	0.43
24:YA:1267:U:H2'	24:YA:1268:A:C8	2.53	0.43
24:YA:1400:G:H2'	24:YA:1401:G:C8	2.53	0.43
24:YA:1550:C:H2'	24:YA:1551:C:H6	1.83	0.43
24:YA:1681:G:O2'	24:YA:1762:A:O2'	2.24	0.43
24:YA:2115:G:N2	24:YA:2165:G:N7	2.67	0.43
24:YA:2688:U:OP1	24:YA:2713:A:N6	2.51	0.43
29:YG:33:ARG:H	29:YG:162:THR:HG1	1.66	0.43
29:YG:34:LEU:HD12	29:YG:172:LEU:HD21	2.00	0.43
29:YG:145:THR:O	29:YG:146:TYR:HB3	2.18	0.43
30:YH:102:ALA:HA	30:YH:117:PRO:HD3	2.01	0.43
49:Y4:45:GLY:C	49:Y4:47:GLN:H	2.26	0.43
1:QA:1202:G:C5	14:QN:42:ILE:HD13	2.52	0.43
7:QG:18:TYR:CG	7:QG:59:LEU:HD21	2.54	0.43
9:QI:91:ASP:OD2	9:QI:93:ARG:NH2	2.51	0.43
24:RA:270(H):C:H2'	24:RA:270(I):G:C8	2.54	0.43
24:RA:570:G:H2'	24:RA:2030:A:C6	2.53	0.43
24:RA:1796:U:H2'	24:RA:1797:C:H6	1.83	0.43
24:RA:1817:G:OP2	26:RD:157:ARG:NH2	2.51	0.43
24:RA:1941:C:N4	24:RA:1965:C:O4'	2.52	0.43
24:RA:2476:A:H2'	24:RA:2477:C:C6	2.53	0.43
39:RU:94:ASN:C	39:RU:96:ALA:H	2.26	0.43
44:RZ:149:SER:OG	44:RZ:150:LEU:N	2.50	0.43
1:XA:266:G:H5'	1:XA:268:C:H5	1.82	0.43
1:XA:339:C:H2'	1:XA:340:U:C6	2.54	0.43
1:XA:1013:G:N2	1:XA:1015:A:H3'	2.34	0.43
1:XA:1407:C:H2'	1:XA:1408:A:H8	1.83	0.43
2:XB:35:GLU:OE1	2:XB:36:ARG:N	2.51	0.43
4:XD:20:TYR:CD1	4:XD:20:TYR:O	2.71	0.43
4:XD:75:PHE:HE1	4:XD:97:LEU:HD21	1.83	0.43
4:XD:165:MET:HA	4:XD:168:ARG:HD3	2.00	0.43
15:XO:29:VAL:HG21	15:XO:81:LEU:HD21	2.00	0.43
24:YA:1429:G:H2'	24:YA:1430:C:C6	2.52	0.43
24:YA:1680:U:H2'	24:YA:1681:G:O4'	2.18	0.43
24:YA:1825:A:H2'	24:YA:1826:G:H8	1.83	0.43
24:YA:2340:G:H2'	24:YA:2341:G:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2377:A:H4'	37:YS:111:GLU:O	2.18	0.43
26:YD:142:VAL:HG13	26:YD:193:VAL:HA	2.00	0.43
28:YF:40:GLN:HE22	28:YF:182:ASN:HB2	1.83	0.43
48:Y3:2:PRO:HG2	48:Y3:39:ASP:HB3	1.99	0.43
22:XV:1:C:H2'	22:XV:2:G:C8	2.54	0.43
1:QA:191(E):G:H2'	1:QA:191(F):U:C6	2.54	0.43
1:QA:327:A:O2'	1:QA:328:C:O4'	2.32	0.43
1:QA:628:G:H2'	1:QA:629:G:H8	1.82	0.43
1:QA:824:C:H2'	1:QA:825:G:H8	1.84	0.43
24:RA:476:G:N1	24:RA:479:A:OP2	2.51	0.43
24:RA:819:A:OP2	24:RA:1187:G:N2	2.48	0.43
24:RA:1357:U:H2'	24:RA:1358:G:O4'	2.19	0.43
24:RA:1478:G:H2'	24:RA:1479:G:H8	1.83	0.43
24:RA:2566:A:H4'	24:RA:2567:G:O5'	2.17	0.43
24:RA:2728:U:H2'	24:RA:2729:G:C8	2.53	0.43
41:RW:33:ARG:NE	41:RW:52:GLU:OE2	2.52	0.43
44:RZ:45:ASP:OD1	44:RZ:49:ARG:NE	2.51	0.43
1:XA:304:U:H2'	1:XA:305:G:C8	2.54	0.43
1:XA:514:C:H2'	1:XA:515:G:C8	2.50	0.43
1:XA:619:U:N3	4:XD:134:ASP:OD1	2.36	0.43
1:XA:703:G:H4'	1:XA:704:A:O5'	2.19	0.43
1:XA:1190:G:H3'	3:XC:3:ASN:ND2	2.34	0.43
1:XA:1502:A:H2	1:XA:1505:G:H1	1.66	0.43
8:XH:14:ARG:HB2	8:XH:83:ILE:HD11	2.00	0.43
13:XM:97:PRO:HG3	13:XM:110:ARG:HB3	2.00	0.43
24:YA:24:G:H1'	41:YW:77:ASP:HB3	2.00	0.43
24:YA:394:A:H2'	24:YA:395:U:O4'	2.18	0.43
24:YA:870:A:P	35:YQ:6:ARG:HH21	2.41	0.43
24:YA:1546:C:H5'	24:YA:1547:C:H5'	2.00	0.43
24:YA:2543:G:H2'	24:YA:2544:G:C8	2.54	0.43
24:YA:2777:G:OP2	24:YA:2781:A:O2'	2.36	0.43
25:YB:3:C:H2'	25:YB:4:C:H6	1.83	0.43
34:YP:90:ARG:HG3	34:YP:91:PHE:CD1	2.54	0.43
53:Y8:29:LYS:HB2	53:Y8:33:ASN:HD21	1.84	0.43
1:QA:277:C:H5'	17:QQ:68:ARG:HH22	1.84	0.43
1:QA:412:A:H4'	1:QA:413:G:O5'	2.18	0.43
7:QG:45:ASP:O	7:QG:49:ILE:HG12	2.19	0.43
7:QG:74:GLU:O	7:QG:76:ARG:NH1	2.51	0.43
8:QH:99:GLU:OE2	8:QH:99:GLU:N	2.51	0.43
24:RA:144:C:H2'	24:RA:145:G:H8	1.83	0.43
24:RA:186:G:H2'	24:RA:187:G:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:730:C:H2'	24:RA:731:C:H6	1.84	0.43
24:RA:807:U:H2'	24:RA:808:G:H8	1.83	0.43
24:RA:1019:U:OP1	24:RA:1035:U:O2'	2.33	0.43
24:RA:1035:U:H2'	24:RA:1036:G:H8	1.83	0.43
24:RA:1124:C:H2'	24:RA:1125:G:O4'	2.18	0.43
24:RA:1853:A:H2'	24:RA:1854:A:H8	1.84	0.43
24:RA:2018:G:H2'	24:RA:2019:A:C8	2.53	0.43
24:RA:2271:G:OP1	45:R0:18:ALA:HB1	2.18	0.43
24:RA:2784:C:H2'	24:RA:2785:C:H6	1.84	0.43
33:RO:68:GLU:HG3	33:RO:78:ARG:HD3	2.01	0.43
36:RR:12:ARG:O	36:RR:17:ARG:NH2	2.52	0.43
1:XA:115:G:C6	1:XA:313:A:N1	2.86	0.43
1:XA:401:C:H2'	1:XA:402:G:H8	1.84	0.43
1:XA:407:G:H5"	4:XD:115:ARG:HB3	2.01	0.43
1:XA:939:G:H2'	1:XA:940:C:C6	2.53	0.43
5:XE:39:GLY:HA2	5:XE:69:VAL:HB	2.00	0.43
10:XJ:78:ASN:HB2	10:XJ:81:THR:HG23	2.01	0.43
24:YA:219:G:N3	24:YA:234:C:O2'	2.46	0.43
24:YA:264:C:H2'	24:YA:265:A:H5"	2.00	0.43
24:YA:519:U:H2'	24:YA:520:G:C8	2.54	0.43
24:YA:839:U:H2'	24:YA:840:C:C6	2.54	0.43
24:YA:1035:U:H2'	24:YA:1036:G:C8	2.54	0.43
24:YA:1796:U:H2'	24:YA:1797:C:H6	1.82	0.43
24:YA:2356:C:H2'	24:YA:2357:U:O4'	2.19	0.43
24:YA:2443:C:H2'	24:YA:2444:G:C8	2.52	0.43
39:YU:62:ILE:HD11	39:YU:93:LYS:HD3	2.01	0.43
41:YW:110:LYS:HG3	41:YW:111:HIS:CD2	2.54	0.43
44:YZ:14:LYS:HA	44:YZ:15:PRO:HD3	1.86	0.43
44:YZ:158:PRO:HD2	44:YZ:161:VAL:HB	2.00	0.43
1:QA:345:C:H3'	38:RT:41:ARG:NH1	2.32	0.43
1:QA:745:C:H5"	1:QA:851:G:H1'	2.00	0.43
3:QC:18:TRP:O	3:QC:54:ARG:NH2	2.50	0.43
15:QO:24:SER:OG	15:QO:25:THR:N	2.50	0.43
22:QV:36:G:H2'	22:QV:37:G:C8	2.53	0.43
24:RA:263:C:H2'	24:RA:264:C:O4'	2.18	0.43
24:RA:1220:A:OP2	39:RU:19:LYS:NZ	2.43	0.43
24:RA:1230:C:H2'	24:RA:1231:G:C8	2.53	0.43
24:RA:1536:A:H5"	24:RA:1537:C:C6	2.54	0.43
24:RA:2148:G:H2'	24:RA:2149:G:H8	1.84	0.43
24:RA:2344:U:OP1	51:R6:37:ARG:HD3	2.19	0.43
24:RA:2379:G:HO2'	37:RS:17:ARG:HH12	1.64	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2648:C:H2'	24:RA:2649:U:C6	2.53	0.43
25:RB:15:A:H5'	25:RB:16:G:C8	2.53	0.43
27:RE:24:THR:OG1	27:RE:186:GLY:HA2	2.19	0.43
32:RN:18:ALA:HA	32:RN:26:LEU:HD11	2.01	0.43
34:RP:13:ASN:C	34:RP:15:ARG:H	2.26	0.43
35:RQ:18:LYS:HE3	35:RQ:18:LYS:HB3	1.91	0.43
35:RQ:21:THR:HB	35:RQ:22:LYS:H	1.62	0.43
36:RR:45:ARG:HA	36:RR:95:THR:HG21	1.99	0.43
1:XA:87:A:H2'	1:XA:88:C:C6	2.52	0.43
1:XA:244:U:H4'	1:XA:245:C:O5'	2.19	0.43
1:XA:505:G:H2'	1:XA:506:G:H8	1.84	0.43
1:XA:674:G:H2'	1:XA:675:A:C8	2.43	0.43
1:XA:750:G:N3	15:XO:23:GLY:HA3	2.34	0.43
1:XA:1079:G:H2'	1:XA:1080:A:C8	2.54	0.43
4:XD:11:LEU:HD13	4:XD:66:ARG:HG2	2.00	0.43
8:XH:85:ARG:HA	8:XH:135:CYS:HB2	2.01	0.43
24:YA:20:C:H2'	24:YA:21:A:H8	1.82	0.43
24:YA:1062:G:N2	24:YA:1078:U:H1'	2.32	0.43
24:YA:1246:A:OP1	34:YP:15:ARG:NH2	2.40	0.43
24:YA:1278:A:H2'	24:YA:1279:G:H8	1.84	0.43
25:YB:86:G:H2'	25:YB:87:G:H8	1.82	0.43
28:YF:192:LEU:HD21	28:YF:194:MET:HE3	2.01	0.43
1:QA:19:C:OP1	5:QE:127:ASN:HB2	2.18	0.43
1:QA:298:A:OP1	1:QA:298:A:C8	2.70	0.43
1:QA:1244:C:H2'	1:QA:1245:A:C8	2.54	0.43
2:QB:121:LEU:O	2:QB:124:SER:OG	2.37	0.43
4:QD:165:MET:HA	4:QD:168:ARG:HD3	2.00	0.43
12:QL:32:PHE:HE2	12:QL:86:ARG:HG3	1.82	0.43
13:QM:3:ARG:HG3	49:R4:34:GLU:HB3	2.01	0.43
24:RA:675:A:C8	24:RA:804:A:C6	3.06	0.43
24:RA:1323:U:OP1	41:RW:98:LYS:NZ	2.44	0.43
24:RA:1638:C:C5'	24:RA:2710:C:O2'	2.63	0.43
24:RA:1657:C:O2'	27:RE:133:LYS:HG2	2.19	0.43
24:RA:1751:C:H2'	24:RA:1752:C:C6	2.54	0.43
24:RA:2635:C:H5"	27:RE:78:LEU:HA	1.99	0.43
24:RA:2868:A:H2'	24:RA:2869:G:C8	2.54	0.43
26:RD:9:TYR:CD2	26:RD:10:THR:HG23	2.53	0.43
32:RN:30:ILE:HG23	32:RN:52:VAL:HG11	2.01	0.43
1:XA:119:A:N7	1:XA:288:A:C6	2.87	0.43
1:XA:269:C:H2'	1:XA:270:A:C8	2.53	0.43
1:XA:345:C:H4'	1:XA:346:G:O5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:413:G:OP2	1:XA:413:G:H8	2.02	0.43
1:XA:582:U:H2'	1:XA:583:A:C8	2.53	0.43
1:XA:639:G:H2'	1:XA:640:A:H8	1.83	0.43
10:XJ:8:LEU:HB2	10:XJ:70:ARG:HB2	2.00	0.43
10:XJ:53:PRO:HG2	10:XJ:54:PHE:CE2	2.53	0.43
13:XM:82:MET:HG2	13:XM:93:ARG:HG2	2.00	0.43
24:YA:37:C:H2'	24:YA:38:A:H8	1.84	0.43
24:YA:680:G:H2'	24:YA:681:G:H8	1.84	0.43
24:YA:1505:C:H2'	24:YA:1506:C:C6	2.53	0.43
26:YD:245:PRO:HA	26:YD:246:PRO:HD3	1.86	0.43
38:YT:24:PRO:HA	38:YT:49:VAL:HG13	2.01	0.43
44:YZ:28:MET:HE2	44:YZ:28:MET:HB3	1.88	0.43
48:Y3:37:LEU:HD13	48:Y3:37:LEU:HA	1.77	0.43
1:QA:318:G:H2'	1:QA:319:G:C8	2.54	0.43
1:QA:430:A:P	4:QD:8:VAL:H	2.42	0.43
1:QA:708:C:OP1	11:QK:85:ARG:NH2	2.43	0.43
1:QA:1481:U:H2'	1:QA:1482:G:H8	1.83	0.43
3:QC:59:ARG:HA	3:QC:63:ASN:O	2.19	0.43
10:QJ:40:LEU:HD13	10:QJ:69:ASN:HB3	2.01	0.43
16:QP:74:LEU:HD12	16:QP:79:VAL:HG21	2.01	0.43
17:QQ:66:SER:O	17:QQ:70:ARG:NH1	2.52	0.43
24:RA:839:U:H1'	24:RA:1191:G:H1'	2.01	0.43
24:RA:1666:G:O2'	33:RO:6:THR:OG1	2.28	0.43
24:RA:1790:C:H5"	24:RA:1791:A:OP1	2.18	0.43
24:RA:2314:C:H5'	29:RG:38:VAL:HG11	2.01	0.43
24:RA:2478:A:H5'	54:R9:31:LYS:HG2	2.00	0.43
26:RD:44:ASN:HB2	26:RD:48:ARG:O	2.18	0.43
36:RR:97:VAL:HA	36:RR:113:LEU:O	2.19	0.43
40:RV:22:VAL:HG22	40:RV:23:GLU:H	1.84	0.43
44:RZ:48:PHE:HA	44:RZ:51:ALA:HB3	2.00	0.43
1:XA:636:U:H2'	1:XA:637:G:H8	1.83	0.43
1:XA:701:C:OP1	1:XA:702:A:O2'	2.23	0.43
1:XA:1022:G:H2'	1:XA:1023:G:C8	2.53	0.43
1:XA:1250:A:H2	1:XA:1370:G:H1'	1.84	0.43
2:XB:83:MET:HE2	2:XB:83:MET:HB2	1.77	0.43
4:XD:14:ARG:HD2	4:XD:40:PRO:HD2	2.00	0.43
8:XH:13:ILE:O	8:XH:17:THR:HG23	2.18	0.43
8:XH:77:GLU:OE2	8:XH:81:HIS:NE2	2.47	0.43
16:XP:12:LYS:HB3	16:XP:12:LYS:HE3	1.90	0.43
16:XP:68:ASP:OD1	16:XP:69:THR:N	2.52	0.43
24:YA:20:C:H2'	24:YA:21:A:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:325:G:H2'	24:YA:326:G:H8	1.84	0.43
24:YA:1435:G:H2'	24:YA:1436:G:C8	2.54	0.43
34:YP:88:LEU:HD12	34:YP:95:VAL:HG21	2.00	0.43
39:YU:106:PHE:O	39:YU:110:VAL:HG23	2.19	0.43
45:Y0:21:LEU:HD11	45:Y0:41:ARG:HE	1.83	0.43
1:QA:1095:U:P	1:QA:1108:G:H1	2.41	0.43
1:QA:1224:G:H1	1:QA:1362(A):C:H42	1.66	0.43
1:QA:1516:G:N2	1:QA:1519:A:OP2	2.50	0.43
19:QS:32:LYS:HD3	19:QS:50:ALA:HB3	2.00	0.43
24:RA:305:U:H2'	24:RA:306:U:C6	2.54	0.43
24:RA:674:G:O2'	28:RF:67:GLN:NE2	2.46	0.43
24:RA:1604:C:O2'	24:RA:1610:A:N1	2.42	0.43
24:RA:1771:C:H2'	24:RA:1772:G:H8	1.84	0.43
25:RB:83:G:H4'	48:R3:52:HIS:CG	2.54	0.43
35:RQ:32:TYR:CE1	35:RQ:133:ARG:HG3	2.54	0.43
38:RT:117:ASP:O	38:RT:121:ILE:HG12	2.19	0.43
1:XA:45:U:H3	1:XA:396:G:H1	1.66	0.43
1:XA:126:G:OP1	1:XA:605:U:O2'	2.27	0.43
1:XA:857:C:H2'	1:XA:858:G:O4'	2.19	0.43
1:XA:1287:A:C2	1:XA:1353:G:H1'	2.53	0.43
15:XO:15:PHE:CE1	15:XO:84:LYS:HD3	2.54	0.43
24:YA:1164:G:H2'	24:YA:1165:U:C6	2.54	0.43
24:YA:1400:G:H2'	24:YA:1401:G:H8	1.83	0.43
24:YA:2701:C:C3'	24:YA:2702:U:H5"	2.39	0.43
49:Y4:10:VAL:HG21	49:Y4:29:PRO:HG3	2.01	0.43
49:Y4:14:ILE:HB	49:Y4:22:ILE:HB	2.00	0.43
22:XV:64:U:H2'	22:XV:65:C:C6	2.54	0.43
1:QA:410:G:N2	1:QA:432:A:H62	2.17	0.42
1:QA:768:A:H5'	1:QA:1524:C:H1'	2.00	0.42
1:QA:1126:U:H5	1:QA:1127:G:C4	2.37	0.42
1:QA:1400:C:N3	22:QV:35:C:O2	2.53	0.42
3:QC:79:ARG:NH2	3:QC:82:GLU:HG2	2.34	0.42
24:RA:303:U:H2'	24:RA:304:G:C8	2.53	0.42
24:RA:307:G:N2	24:RA:310:A:OP2	2.52	0.42
24:RA:637:A:H4'	24:RA:638:G:O5'	2.19	0.42
24:RA:689:A:H2'	24:RA:690:G:H8	1.84	0.42
24:RA:924:C:H2'	24:RA:925:C:C6	2.54	0.42
24:RA:1210:A:H5'	24:RA:1211:U:H2'	2.01	0.42
24:RA:1411:C:N4	24:RA:1591:G:H1	2.15	0.42
24:RA:1657:C:H2'	24:RA:1658:C:H6	1.84	0.42
24:RA:2345:G:O2'	24:RA:2381:C:O2	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2637:U:H5”	27:RE:82:ARG:NH1	2.34	0.42
24:RA:2812:G:H2’	24:RA:2813:A:H8	1.83	0.42
29:RG:36:LYS:N	29:RG:99:MET:HE1	2.33	0.42
40:RV:16:PRO:HD3	40:RV:99:ILE:HD11	2.01	0.42
40:RV:62:LEU:HB3	40:RV:93:GLU:HG2	2.00	0.42
47:R2:14:ARG:NH1	47:R2:66:GLU:OE1	2.51	0.42
49:R4:24:THR:OG1	49:R4:25:TYR:N	2.52	0.42
1:XA:19:C:H2’	1:XA:20:U:C6	2.54	0.42
1:XA:22:G:H4’	1:XA:885:G:C8	2.54	0.42
1:XA:489:C:H2’	1:XA:490:G:C8	2.53	0.42
12:XL:67:THR:OG1	12:XL:95:GLY:O	2.34	0.42
13:XM:70:LEU:HA	13:XM:73:GLU:HG2	2.00	0.42
19:XS:41:VAL:HG12	19:XS:44:MET:HE2	2.00	0.42
24:YA:1595:G:H2’	24:YA:1596:A:C8	2.53	0.42
24:YA:1844:C:H2’	24:YA:1845:G:H8	1.84	0.42
24:YA:2065:C:H2’	24:YA:2066:C:H6	1.83	0.42
24:YA:2470:G:OP1	35:YQ:56:ARG:NH2	2.52	0.42
29:YG:32:PRO:HB3	29:YG:163:ALA:HB2	2.01	0.42
29:YG:52:ILE:HD12	29:YG:55:LYS:HB3	2.01	0.42
30:YH:54:ARG:HD3	30:YH:65:HIS:HD1	1.82	0.42
36:YR:2:ARG:HB3	36:YR:5:LYS:HE3	2.01	0.42
38:YT:111:ARG:C	38:YT:113:LYS:H	2.26	0.42
39:YU:39:LEU:HD23	39:YU:39:LEU:HA	1.89	0.42
1:QA:41:G:H2’	1:QA:42:G:C8	2.52	0.42
1:QA:315:A:H5”	1:QA:317:G:OP2	2.19	0.42
1:QA:452:A:H2’	1:QA:453:A:H8	1.83	0.42
1:QA:876:G:O5’	8:QH:14:ARG:NH1	2.52	0.42
1:QA:1071:C:H2’	1:QA:1072:G:C8	2.52	0.42
1:QA:1301:U:O2	1:QA:1301:U:H2’	2.18	0.42
7:QG:89:MET:HE3	7:QG:90:GLU:HB2	2.01	0.42
12:QL:111:LYS:H	12:QL:111:LYS:HG2	1.68	0.42
13:QM:56:LEU:O	13:QM:60:VAL:HG22	2.20	0.42
22:QV:4:U:O2’	22:QV:5:G:H8	2.02	0.42
22:QV:20:G:H5’	22:QV:21:U:C5	2.54	0.42
24:RA:356:G:H2’	24:RA:357:A:C8	2.55	0.42
24:RA:1006:C:O2’	32:RN:106:MET:O	2.32	0.42
24:RA:1297:C:H2’	24:RA:1298:C:C6	2.54	0.42
24:RA:1401:G:H2’	24:RA:1402:C:C6	2.54	0.42
28:RF:65:TRP:NE1	28:RF:73:ALA:O	2.48	0.42
31:RI:33:ARG:HB2	31:RI:35:LEU:HD22	2.01	0.42
31:RI:122:GLU:OE1	31:RI:126:TYR:OH	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:RT:111:ARG:C	38:RT:113:LYS:H	2.27	0.42
44:RZ:145:GLU:HG3	44:RZ:146:ILE:H	1.83	0.42
48:R3:12:PRO:HB2	48:R3:20:LYS:HG2	2.01	0.42
1:XA:17:U:H2'	1:XA:18:C:H6	1.83	0.42
1:XA:328:C:H1'	1:XA:329:A:OP2	2.19	0.42
1:XA:337:C:H2'	1:XA:338:A:C8	2.54	0.42
1:XA:411:A:H62	1:XA:413:G:H21	1.67	0.42
1:XA:560:U:H4'	1:XA:561:U:H5"	2.01	0.42
2:XB:84:GLU:OE1	2:XB:87:ARG:NH2	2.43	0.42
7:XG:115:ARG:HB2	7:XG:118:VAL:HG12	2.01	0.42
24:YA:242:G:H4'	24:YA:243:U:O5'	2.19	0.42
24:YA:278:A:O2'	24:YA:279:C:O4'	2.33	0.42
24:YA:338:G:OP1	43:YY:4:LYS:NZ	2.52	0.42
24:YA:863:A:H2'	24:YA:864:G:C8	2.54	0.42
24:YA:1309:G:H4'	52:Y7:7:PRO:HB2	2.01	0.42
24:YA:1430:C:H2'	24:YA:1431:U:C6	2.54	0.42
24:YA:1693:U:O2	26:YD:14:ARG:NH1	2.53	0.42
24:YA:1771:C:O2'	24:YA:1786:A:O4'	2.35	0.42
24:YA:1790:C:H5"	24:YA:1791:A:OP1	2.18	0.42
24:YA:2185:C:H2'	24:YA:2186:G:H8	1.83	0.42
26:YD:31:LYS:HD3	26:YD:31:LYS:HA	1.85	0.42
27:YE:143:ASN:HB2	27:YE:147:PRO:HD2	2.00	0.42
28:YF:198:ALA:HA	28:YF:201:VAL:HG12	2.02	0.42
44:YZ:30:ASN:OD1	44:YZ:33:LEU:N	2.51	0.42
47:Y2:16:LEU:HD22	47:Y2:21:LEU:HD13	2.01	0.42
48:Y3:4:LEU:HD12	48:Y3:39:ASP:HB2	2.01	0.42
1:QA:806:C:H2'	1:QA:807:A:C8	2.48	0.42
1:QA:1427:U:H2'	1:QA:1428:A:C8	2.53	0.42
24:RA:83:G:H1	24:RA:102:G:HO2'	1.64	0.42
24:RA:532:A:H4'	24:RA:533:G:C8	2.54	0.42
24:RA:689:A:H2'	24:RA:690:G:C8	2.55	0.42
24:RA:1165:U:H2'	24:RA:1166:C:H6	1.84	0.42
24:RA:1332:G:H8	24:RA:1332:G:H2'	1.65	0.42
24:RA:1468:C:H2'	24:RA:1469:A:C8	2.53	0.42
24:RA:2123:G:H2'	24:RA:2124:G:H8	1.83	0.42
24:RA:2133:G:H1'	24:RA:2158:A:N6	2.34	0.42
24:RA:2695:C:H2'	24:RA:2696:U:C6	2.55	0.42
25:RB:8:U:H3	25:RB:112:G:H1	1.66	0.42
29:RG:86:MET:HE2	29:RG:86:MET:HB3	1.90	0.42
43:RY:82:PRO:O	43:RY:101:LYS:NZ	2.50	0.42
1:XA:166:G:H2'	1:XA:167:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:347:G:O2'	1:XA:348:G:H5"	2.19	0.42
1:XA:575:G:O2'	1:XA:821:G:H5'	2.19	0.42
8:XH:59:LEU:HD13	8:XH:59:LEU:HA	1.81	0.42
9:XI:112:LYS:HA	9:XI:119:ALA:HB2	2.01	0.42
24:YA:521:G:H2'	24:YA:522:G:C8	2.53	0.42
24:YA:875:G:H2'	24:YA:876:C:C6	2.54	0.42
24:YA:882:G:H2'	24:YA:883:G:C8	2.54	0.42
24:YA:1670:C:H5'	24:YA:1671:U:OP2	2.19	0.42
24:YA:2119:A:H61	24:YA:2168:G:N2	2.18	0.42
29:YG:37:VAL:HG13	29:YG:159:VAL:HG12	2.00	0.42
29:YG:47:LYS:HB3	29:YG:81:LYS:HD2	2.02	0.42
35:YQ:32:TYR:CE1	35:YQ:133:ARG:HG3	2.54	0.42
44:YZ:70:LEU:HB2	44:YZ:91:LEU:HD21	2.01	0.42
1:QA:165:C:H2'	1:QA:166:G:C8	2.51	0.42
1:QA:192:U:H2'	1:QA:193:C:H6	1.83	0.42
1:QA:255:G:H2'	1:QA:256:U:C6	2.54	0.42
1:QA:645:C:H2'	1:QA:646:U:C6	2.55	0.42
1:QA:686:U:H1'	11:QK:42:TRP:NE1	2.34	0.42
1:QA:1286:A:H2'	1:QA:1287:A:H4'	2.01	0.42
8:QH:34:GLU:HB3	8:QH:118:VAL:HG11	2.02	0.42
24:RA:96:G:H4'	47:R2:48:HIS:CD2	2.54	0.42
24:RA:270(V):G:H2'	24:RA:270(W):G:H8	1.84	0.42
24:RA:1499:C:H2'	24:RA:1500:G:H8	1.83	0.42
24:RA:2573:C:OP1	24:RA:2574:G:OP1	2.37	0.42
26:RD:50:THR:OG1	26:RD:51:VAL:N	2.51	0.42
35:RQ:67:ARG:O	35:RQ:101:ARG:NH2	2.50	0.42
46:R1:53:VAL:C	46:R1:55:GLY:H	2.26	0.42
1:XA:62:U:H3	1:XA:105:G:H1	1.67	0.42
1:XA:598:U:H4'	8:XH:94:TYR:CG	2.53	0.42
1:XA:1244:C:H2'	1:XA:1245:A:H8	1.84	0.42
4:XD:20:TYR:HA	4:XD:26:CYS:SG	2.59	0.42
5:XE:78:HIS:HB3	8:XH:107:LEU:HD22	2.00	0.42
18:XR:44:LEU:HD12	18:XR:44:LEU:HA	1.93	0.42
19:XS:65:ASN:O	49:Y4:58:ARG:HD2	2.19	0.42
24:YA:263:C:H2'	24:YA:264:C:O4'	2.20	0.42
24:YA:448:U:C4	24:YA:583:G:H1'	2.54	0.42
24:YA:562:U:H6	24:YA:562:U:H2'	1.64	0.42
24:YA:1182:A:H2'	24:YA:1183:G:C8	2.55	0.42
24:YA:1348:G:H2'	24:YA:1349:A:H5"	2.01	0.42
24:YA:1637:A:H2'	24:YA:1638:C:C6	2.54	0.42
24:YA:2081:C:H2'	24:YA:2082:A:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2635:C:OP1	27:YE:78:LEU:HD13	2.20	0.42
24:YA:2852:G:H2'	24:YA:2853:C:C6	2.54	0.42
30:YH:153:LYS:HB2	30:YH:162:ILE:HD12	2.00	0.42
32:YN:47:ALA:O	32:YN:119:ARG:NH1	2.52	0.42
33:YO:19:ILE:HG22	33:YO:43:VAL:HG12	2.01	0.42
39:YU:90:VAL:HG11	40:YV:40:LEU:HG	2.02	0.42
53:Y8:61:LEU:HA	53:Y8:61:LEU:HD23	1.75	0.42
2:QB:60:ASP:HB3	2:QB:64:ARG:HH12	1.85	0.42
13:QM:57:ARG:HH22	49:R4:17:GLY:C	2.28	0.42
24:RA:180:G:OP1	52:R7:32:LYS:HG3	2.20	0.42
24:RA:519:U:H2'	24:RA:520:G:C8	2.55	0.42
24:RA:764:A:O2'	24:RA:765:G:H5'	2.20	0.42
24:RA:863:A:H2'	24:RA:864:G:C8	2.55	0.42
24:RA:922:U:H2'	24:RA:923:C:H6	1.84	0.42
24:RA:1161:C:H2'	24:RA:1162:G:C8	2.53	0.42
24:RA:1336:A:H2'	24:RA:1337:G:H8	1.84	0.42
24:RA:2597:G:H2'	24:RA:2598:A:C8	2.54	0.42
25:RB:44:G:H5"	25:RB:45:A:OP1	2.18	0.42
27:RE:46:ALA:HB1	27:RE:80:GLU:HB3	2.02	0.42
28:RF:157:VAL:HG11	28:RF:181:LEU:HD21	2.02	0.42
41:RW:76:VAL:HG22	41:RW:103:ILE:HA	2.02	0.42
1:XA:41:G:H2'	1:XA:42:G:C8	2.54	0.42
1:XA:78:G:H3'	1:XA:79:G:C8	2.54	0.42
1:XA:583:A:H2'	1:XA:584:G:O4'	2.20	0.42
1:XA:707:C:H2'	1:XA:708:C:C6	2.54	0.42
1:XA:848:C:H2'	1:XA:849:C:H6	1.84	0.42
1:XA:1172:C:H2'	1:XA:1173:G:C8	2.53	0.42
1:XA:1305:G:OP1	21:XU:2:GLY:HA2	2.18	0.42
8:XH:121:ASP:OD1	8:XH:122:ARG:N	2.50	0.42
24:YA:414:C:O2	24:YA:1864:U:O2'	2.36	0.42
24:YA:1508:A:O2'	24:YA:1509:C:O5'	2.37	0.42
26:YD:95:LEU:HD23	26:YD:95:LEU:HA	1.88	0.42
29:YG:86:MET:HE2	29:YG:86:MET:HB3	1.79	0.42
1:QA:753:A:H4'	1:QA:754:C:O5'	2.18	0.42
1:QA:1298:C:H4'	1:QA:1299:A:C8	2.55	0.42
14:QN:9:LYS:O	14:QN:19:ARG:NH2	2.52	0.42
23:QX:19:C:H6	23:QX:19:C:O5'	2.02	0.42
24:RA:24:G:O2'	41:RW:78:GLU:O	2.34	0.42
24:RA:709:U:H2'	24:RA:710:G:C8	2.53	0.42
24:RA:1405:U:H2'	24:RA:1406:U:C6	2.52	0.42
24:RA:1923:U:H2'	24:RA:1924:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2327:A:N7	24:RA:2388:A:N6	2.68	0.42
24:RA:2404:C:H2'	24:RA:2405:G:O4'	2.19	0.42
24:RA:2790:A:H2'	24:RA:2791:C:H5"	2.02	0.42
30:RH:144:VAL:O	30:RH:148:ILE:HD12	2.20	0.42
30:RH:153:LYS:HB3	30:RH:161:GLY:HA2	2.00	0.42
35:RQ:13:GLN:O	35:RQ:72:LYS:NZ	2.44	0.42
38:RT:8:LYS:HA	38:RT:11:GLU:OE2	2.19	0.42
38:RT:123:GLN:HB3	38:RT:124:ASP:H	1.50	0.42
44:RZ:4:ARG:HG2	44:RZ:58:VAL:HB	2.00	0.42
1:XA:191(D):U:H2'	1:XA:191(E):G:H8	1.84	0.42
1:XA:192:U:H2'	1:XA:193:C:C6	2.54	0.42
1:XA:281:G:OP2	1:XA:281:G:H8	2.03	0.42
1:XA:300:A:O2'	1:XA:564:C:N3	2.43	0.42
3:XC:3:ASN:HB3	3:XC:4:LYS:HD2	2.01	0.42
4:XD:79:PHE:HZ	4:XD:204:ILE:HG13	1.85	0.42
5:XE:32:VAL:HG11	5:XE:55:VAL:HG23	2.02	0.42
11:XK:19:ALA:O	11:XK:82:VAL:HA	2.20	0.42
15:XO:57:LEU:HA	15:XO:60:VAL:HG12	2.01	0.42
18:XR:86:VAL:HG12	18:XR:87:ARG:HG2	2.02	0.42
20:XT:51:GLU:HA	20:XT:54:LYS:HG2	2.00	0.42
24:YA:1818:U:H2'	26:YD:157:ARG:HG2	2.02	0.42
24:YA:2112:G:O6	24:YA:2169:A:N6	2.53	0.42
24:YA:2676:C:H2'	24:YA:2677:G:C8	2.54	0.42
32:YN:6:PRO:HG3	32:YN:41:ASP:HB2	2.01	0.42
34:YP:13:ASN:C	34:YP:15:ARG:H	2.28	0.42
41:YW:17:VAL:HG13	41:YW:76:VAL:HG21	2.01	0.42
1:QA:164:U:H2'	1:QA:165:C:H6	1.84	0.42
1:QA:308:C:H2'	1:QA:309:G:C8	2.55	0.42
1:QA:812:C:H6	1:QA:812:C:H2'	1.71	0.42
1:QA:979:C:OP1	1:QA:1223:C:N4	2.52	0.42
1:QA:1064:G:OP2	1:QA:1385:G:O2'	2.25	0.42
1:QA:1189:C:H5"	3:QC:5:ILE:HG21	2.02	0.42
1:QA:1322:C:H6	1:QA:1322:C:OP1	2.02	0.42
1:QA:1524:C:H2'	1:QA:1525:G:C8	2.55	0.42
2:QB:178:ARG:NH2	2:QB:196:LEU:O	2.52	0.42
10:QJ:13:HIS:HB3	10:QJ:68:HIS:ND1	2.34	0.42
10:QJ:41:PRO:O	10:QJ:43:ARG:NH1	2.53	0.42
12:QL:76:ASN:OD1	12:QL:76:ASN:N	2.52	0.42
16:QP:67:THR:HG22	16:QP:68:ASP:N	2.34	0.42
22:QV:2:G:H2'	22:QV:3:G:H8	1.85	0.42
24:RA:857:C:OP1	45:R0:69:PHE:HD2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:918:A:N3	25:RB:80:U:O2'	2.50	0.42
24:RA:1258:C:H2'	24:RA:1259:G:C8	2.55	0.42
24:RA:1752:C:H2'	24:RA:1753:G:C8	2.54	0.42
24:RA:2081:C:H2'	24:RA:2082:A:C8	2.54	0.42
24:RA:2448:A:OP2	24:RA:2499:C:OP2	2.37	0.42
24:RA:2462:U:H2'	24:RA:2463:C:C6	2.55	0.42
24:RA:2514:U:H2'	24:RA:2515:C:H6	1.85	0.42
1:XA:328:C:H4'	1:XA:329:A:O5'	2.20	0.42
1:XA:784:C:H4'	24:YA:1837:C:OP1	2.20	0.42
1:XA:1308:U:H2'	1:XA:1309:G:C8	2.55	0.42
1:XA:1513:A:H2'	1:XA:1514:C:H6	1.85	0.42
2:XB:185:ILE:HA	2:XB:199:TYR:O	2.19	0.42
7:XG:103:TRP:CD2	7:XG:137:LYS:HD3	2.54	0.42
11:XK:67:ASP:O	11:XK:71:LYS:HG2	2.20	0.42
11:XK:86:GLY:O	11:XK:91:ARG:NH1	2.50	0.42
13:XM:10:PRO:HG3	13:XM:22:ILE:HD11	2.00	0.42
16:XP:26:ARG:HA	16:XP:26:ARG:HD3	1.94	0.42
23:XX:1:G:H2'	23:XX:2:G:C8	2.53	0.42
24:YA:630:G:N2	24:YA:633:A:OP2	2.26	0.42
24:YA:813:U:H2'	24:YA:814:C:C6	2.55	0.42
24:YA:1544:C:O2'	24:YA:1545:A:O5'	2.34	0.42
24:YA:2230:G:O2'	46:Y1:43:TYR:O	2.27	0.42
24:YA:2384:G:OP2	45:Y0:55:ARG:NH2	2.52	0.42
26:YD:79:VAL:HG21	26:YD:111:LEU:HD11	2.01	0.42
27:YE:174:ASP:HB3	27:YE:183:LEU:HD12	2.01	0.42
32:YN:114:ARG:H	32:YN:114:ARG:HG2	1.63	0.42
1:QA:35:G:H2'	1:QA:36:C:C6	2.55	0.42
1:QA:784:C:H4'	24:RA:1837:C:OP1	2.20	0.42
1:QA:1218:C:H2'	1:QA:1219:U:C6	2.54	0.42
1:QA:1446:A:HO2'	1:QA:1447:G:P	2.41	0.42
24:RA:30:G:H2'	24:RA:31:C:C6	2.55	0.42
24:RA:138:G:H22	42:RX:44:GLU:CD	2.27	0.42
24:RA:935:C:H2'	24:RA:936:C:H6	1.84	0.42
24:RA:947:G:H2'	24:RA:948:G:C8	2.55	0.42
24:RA:1166:C:H2'	24:RA:1167:U:C6	2.55	0.42
24:RA:1191:G:P	34:RP:18:ARG:HH22	2.42	0.42
24:RA:1667:G:H8	24:RA:1667:G:OP2	2.03	0.42
24:RA:2385:C:H2'	24:RA:2386:C:C6	2.55	0.42
24:RA:2503:A:O2'	24:RA:2505:G:OP2	2.28	0.42
26:RD:71:ASP:HB2	26:RD:103:ARG:HH12	1.84	0.42
30:RH:154:PRO:HG3	30:RH:162:ILE:HG13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:RN:16:ILE:HG21	32:RN:26:LEU:HD21	2.00	0.42
34:RP:94:GLU:O	34:RP:96:THR:HG23	2.19	0.42
38:RT:111:ARG:O	38:RT:112:ARG:HB3	2.20	0.42
1:XA:62:U:H2'	1:XA:63:C:C6	2.54	0.42
1:XA:1145:C:H4'	1:XA:1146:A:H5'	2.01	0.42
1:XA:1250:A:N3	1:XA:1370:G:O2'	2.40	0.42
24:YA:210:C:H2'	24:YA:211:A:C8	2.55	0.42
24:YA:637:A:H4'	24:YA:638:G:O5'	2.19	0.42
24:YA:1057:A:N6	24:YA:1087:G:OP2	2.52	0.42
24:YA:1258:C:H2'	24:YA:1259:G:C8	2.55	0.42
24:YA:1593:G:H2'	24:YA:1594:G:H8	1.84	0.42
24:YA:1794:U:H2'	24:YA:1795:C:C6	2.55	0.42
24:YA:2593:U:H2'	24:YA:2594:C:C6	2.55	0.42
24:YA:2657:A:H1'	24:YA:2665:A:N6	2.35	0.42
24:YA:2880:C:O3'	36:YR:90:ARG:NH1	2.52	0.42
28:YF:186:ILE:HG23	28:YF:192:LEU:HD12	2.02	0.42
29:YG:166:ASP:OD1	29:YG:166:ASP:N	2.53	0.42
33:YO:22:ILE:HB	33:YO:40:VAL:HG23	2.01	0.42
35:YQ:29:PHE:N	35:YQ:105:GLU:OE2	2.34	0.42
1:QA:335:C:H2'	1:QA:336:C:H6	1.85	0.42
1:QA:963:G:H21	10:QJ:55:LYS:HE2	1.85	0.42
1:QA:1343:G:H2'	1:QA:1344:C:C6	2.55	0.42
12:QL:59:ARG:NH1	12:QL:60:LEU:O	2.53	0.42
14:QN:29:ARG:HH22	14:QN:41:ARG:HG2	1.85	0.42
19:QS:80:TYR:HD2	19:QS:82:GLY:H	1.68	0.42
21:QU:25:LYS:HE2	21:QU:25:LYS:HB2	1.82	0.42
22:QV:55:U:H2'	22:QV:56:U:C6	2.54	0.42
24:RA:51:G:OP2	24:RA:51:G:H8	2.03	0.42
24:RA:78:A:H2'	24:RA:79:G:C8	2.55	0.42
24:RA:270(R):G:H2'	24:RA:270(S):G:C8	2.55	0.42
24:RA:397:G:OP2	46:R1:10:LYS:NZ	2.41	0.42
24:RA:582:G:H2'	24:RA:583:G:C8	2.55	0.42
24:RA:660:G:H4'	28:RF:38:ARG:NH1	2.35	0.42
24:RA:671:C:H2'	24:RA:672:C:C6	2.55	0.42
24:RA:760:G:H2'	24:RA:761:A:O4'	2.19	0.42
24:RA:2097:C:H2'	24:RA:2098:U:C6	2.55	0.42
30:RH:149:ARG:NH2	30:RH:167:GLU:OE2	2.48	0.42
32:RN:23:LEU:HD13	32:RN:60:ILE:HD12	2.02	0.42
1:XA:218:C:H2'	1:XA:219:C:C6	2.55	0.42
1:XA:261:U:H3	1:XA:263:A:H3'	1.85	0.42
1:XA:358:U:C6	1:XA:358:U:C3'	3.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:359:U:H5”	1:XA:360:A:OP2	2.20	0.42
1:XA:382:A:H2’	1:XA:383:A:H8	1.84	0.42
1:XA:563:A:H2’	1:XA:567:G:C8	2.55	0.42
1:XA:781:A:H4’	1:XA:1522:U:O2’	2.20	0.42
11:XK:22:HIS:HB3	11:XK:29:ILE:HG23	2.00	0.42
12:XL:77:LEU:HD21	12:XL:107:ALA:HB2	2.00	0.42
17:XQ:6:LEU:HD13	17:XQ:6:LEU:HA	1.87	0.42
24:YA:315:G:H2’	24:YA:316:C:C6	2.55	0.42
24:YA:896:A:O2’	44:YZ:176:PRO:HG3	2.20	0.42
24:YA:1438:U:H2’	24:YA:1439:A:C8	2.54	0.42
24:YA:1841:U:H2’	24:YA:1842:G:H8	1.84	0.42
24:YA:2047:U:O2’	24:YA:2823:A:N1	2.51	0.42
26:YD:25:THR:O	26:YD:27:THR:N	2.51	0.42
36:YR:74:LYS:C	36:YR:76:VAL:H	2.27	0.42
38:YT:124:ASP:OD1	38:YT:124:ASP:N	2.49	0.42
46:Y1:5:CYS:HG	46:Y1:8:SER:HG	1.68	0.42
1:QA:407:G:H2’	1:QA:408:A:H8	1.83	0.42
1:QA:920:U:H2’	1:QA:921:U:C6	2.55	0.42
1:QA:1268:A:H1’	1:QA:1326:C:O2’	2.20	0.42
12:QL:69:TYR:O	12:QL:100:ILE:HG22	2.20	0.42
20:QT:43:LEU:HB3	20:QT:52:ALA:HB2	2.01	0.42
22:QV:65:C:H2’	22:QV:66:U:C6	2.54	0.42
24:RA:20:C:H2’	24:RA:21:A:C8	2.55	0.42
24:RA:347:A:H2’	24:RA:348:G:H8	1.85	0.42
24:RA:1568:G:H5”	26:RD:61:LEU:HG	2.01	0.42
24:RA:1756:G:H4’	24:RA:1758:G:O4’	2.20	0.42
26:RD:39:LYS:HE2	26:RD:60:ARG:HB2	2.02	0.42
27:RE:9:VAL:HB	27:RE:25:VAL:HG23	2.01	0.42
29:RG:124:SER:OG	29:RG:124:SER:O	2.30	0.42
39:RU:91:ASP:C	39:RU:93:LYS:N	2.78	0.42
1:XA:358:U:C6	1:XA:358:U:H3’	2.55	0.42
1:XA:537:G:H2’	1:XA:538:G:H8	1.85	0.42
1:XA:584:G:H2’	1:XA:585:G:H8	1.85	0.42
1:XA:1121:U:H2’	1:XA:1122:U:C6	2.55	0.42
1:XA:1352:C:H2’	1:XA:1353:G:C8	2.55	0.42
1:XA:1496:C:H2’	1:XA:1497:G:C8	2.54	0.42
5:XE:83:GLU:HG2	5:XE:88:LYS:HG3	2.02	0.42
24:YA:111:A:H4’	47:Y2:69:ARG:NH2	2.34	0.42
24:YA:466:A:N3	24:YA:683:C:H1’	2.35	0.42
24:YA:572:A:OP2	40:YV:78:LYS:NZ	2.49	0.42
24:YA:580:C:H2’	24:YA:581:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:841:A:H2'	24:YA:842:G:C8	2.55	0.42
24:YA:1756:G:H4'	24:YA:1758:G:O4'	2.19	0.42
24:YA:1771:C:H2'	24:YA:1772:G:C8	2.55	0.42
24:YA:1796:U:H2'	24:YA:1797:C:C6	2.55	0.42
24:YA:2020:A:N7	50:Y5:9:LYS:NZ	2.63	0.42
24:YA:2487:G:H2'	24:YA:2488:A:C8	2.55	0.42
32:YN:39:ARG:HB2	32:YN:48:MET:HE1	2.02	0.42
38:YT:26:ASP:HB2	38:YT:90:GLN:O	2.20	0.42
22:XV:35:C:H2'	22:XV:36:G:C8	2.55	0.42
1:QA:647:C:H2'	1:QA:648:A:C8	2.54	0.41
1:QA:881:G:P	12:QL:12:ARG:HH22	2.43	0.41
1:QA:1244:C:H2'	1:QA:1245:A:H8	1.84	0.41
1:QA:1391:U:H2'	1:QA:1392:G:H8	1.85	0.41
1:QA:1500:A:OP1	1:QA:1505:G:OP1	2.38	0.41
3:QC:36:ASP:HA	3:QC:39:ILE:HD12	2.01	0.41
3:QC:118:GLN:O	3:QC:122:GLU:HG3	2.20	0.41
18:QR:73:ALA:HB1	18:QR:78:LEU:HD12	2.02	0.41
24:RA:108:U:H2'	24:RA:109:G:C8	2.55	0.41
24:RA:1467:C:C5	24:RA:1546:C:H2'	2.55	0.41
24:RA:1812:A:H2'	24:RA:1813:G:C8	2.55	0.41
27:RE:49:LEU:HD13	27:RE:49:LEU:HA	1.90	0.41
32:RN:47:ALA:O	32:RN:119:ARG:NH1	2.53	0.41
33:RO:19:ILE:HG22	33:RO:43:VAL:HA	2.01	0.41
42:RX:34:ALA:O	42:RX:77:LYS:NZ	2.47	0.41
1:XA:18:C:H5"	5:XE:127:ASN:HD21	1.84	0.41
1:XA:97:U:H2'	1:XA:99:C:H6	1.85	0.41
1:XA:269:C:H2'	1:XA:270:A:H8	1.85	0.41
1:XA:412:A:H4'	1:XA:413:G:O5'	2.19	0.41
1:XA:570:G:H2'	1:XA:571:U:C6	2.55	0.41
1:XA:587:G:N2	1:XA:754:C:OP2	2.53	0.41
1:XA:1161:C:O2'	1:XA:1162:C:H5'	2.20	0.41
1:XA:1220:G:N2	19:XS:54:GLY:O	2.52	0.41
1:XA:1371:G:O3'	9:XI:69:GLY:HA3	2.18	0.41
2:XB:76:GLN:HE22	2:XB:206:ASP:HB3	1.84	0.41
3:XC:132:ARG:O	3:XC:136:GLN:HG3	2.20	0.41
7:XG:12:LEU:HD12	7:XG:13:GLN:H	1.84	0.41
24:YA:1609:A:C6	24:YA:1616:A:C5	3.07	0.41
24:YA:1613:G:O2'	52:Y7:3:ARG:NE	2.53	0.41
24:YA:2735:G:H2'	24:YA:2736:G:C8	2.55	0.41
34:YP:33:ARG:HD3	34:YP:40:SER:HA	2.02	0.41
22:XV:19:G:H8	22:XV:19:G:OP1	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:231:G:H2'	1:QA:232:G:H8	1.84	0.41
6:QF:50:TYR:CE1	18:QR:77:GLY:HA2	2.55	0.41
8:QH:53:VAL:HB	8:QH:58:TYR:HD1	1.85	0.41
12:QL:39:VAL:HG12	12:QL:57:LYS:HB3	2.02	0.41
22:QV:64:U:H2'	22:QV:65:C:C6	2.56	0.41
24:RA:38:A:H2'	24:RA:39:C:C6	2.54	0.41
24:RA:78:A:H2'	24:RA:79:G:H8	1.84	0.41
24:RA:663:G:H2'	24:RA:664:C:C6	2.55	0.41
24:RA:1114:G:H2'	24:RA:1115:G:H8	1.85	0.41
24:RA:1164:G:H2'	24:RA:1165:U:C6	2.55	0.41
24:RA:1173:G:H4'	24:RA:1174:A:N7	2.34	0.41
24:RA:1314:C:OP1	24:RA:1332:G:OP1	2.38	0.41
24:RA:1658:C:H2'	24:RA:1659:U:C6	2.55	0.41
24:RA:1902:C:OP1	26:RD:242:ARG:NH1	2.53	0.41
24:RA:2529:G:O6	54:R9:31:LYS:NZ	2.53	0.41
28:RF:67:GLN:HG3	28:RF:67:GLN:O	2.20	0.41
28:RF:122:LYS:HB3	28:RF:191:ARG:HA	2.00	0.41
30:RH:58:GLU:OE1	30:RH:59:ARG:NH1	2.53	0.41
31:RI:1:MET:N	31:RI:20:ASP:OD1	2.48	0.41
39:RU:92:ARG:C	39:RU:94:ASN:H	2.27	0.41
45:R0:38:VAL:HB	45:R0:59:LEU:HB2	2.02	0.41
47:R2:21:LEU:HB3	47:R2:64:LEU:HD12	2.02	0.41
1:XA:339:C:H2'	1:XA:340:U:H6	1.85	0.41
1:XA:1141:C:H2'	1:XA:1142:G:C8	2.50	0.41
1:XA:1253:G:H4'	10:XJ:46:ARG:HH22	1.85	0.41
1:XA:1429:C:H2'	1:XA:1430:C:C6	2.55	0.41
24:YA:108:U:H2'	24:YA:109:G:H8	1.85	0.41
24:YA:1268:A:OP1	24:YA:2006:C:OP1	2.37	0.41
24:YA:1355:G:H2'	24:YA:1356:G:H8	1.85	0.41
24:YA:1604:C:H2'	24:YA:1605:C:H6	1.84	0.41
24:YA:1888:G:OP2	24:YA:1888:G:N2	2.53	0.41
24:YA:2365:G:O6	53:Y8:43:GLN:NE2	2.53	0.41
24:YA:2566:A:H4'	24:YA:2567:G:O5'	2.19	0.41
24:YA:2712:U:O2'	24:YA:2712(A):A:OP1	2.38	0.41
27:YE:12:THR:OG1	27:YE:13:ARG:N	2.53	0.41
34:YP:49:ARG:HG3	53:Y8:59:LYS:NZ	2.35	0.41
39:YU:58:ARG:O	39:YU:62:ILE:HG12	2.20	0.41
39:YU:91:ASP:C	39:YU:93:LYS:H	2.27	0.41
1:QA:10:A:H2'	1:QA:11:G:C8	2.55	0.41
1:QA:627:G:H2'	1:QA:628:G:H8	1.86	0.41
1:QA:812:C:H1'	1:QA:813:U:OP2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:940:C:H2'	1:QA:941:G:C8	2.55	0.41
1:QA:950:U:H2'	1:QA:951:G:H8	1.85	0.41
7:QG:30:ILE:HG23	7:QG:39:ALA:HB1	2.02	0.41
24:RA:302:C:H2'	24:RA:303:U:C6	2.55	0.41
24:RA:532:A:N1	24:RA:2035:G:N2	2.68	0.41
24:RA:903:C:H2'	24:RA:904:C:H6	1.86	0.41
24:RA:1289:C:H2'	24:RA:1290:C:C6	2.54	0.41
24:RA:1794:U:H2'	24:RA:1795:C:H6	1.84	0.41
24:RA:2036:C:H2'	24:RA:2037:G:H8	1.85	0.41
24:RA:2619:C:H5"	27:RE:152:LYS:HA	2.01	0.41
25:RB:109:G:H2'	25:RB:110:G:H8	1.85	0.41
30:RH:86:GLU:HB3	30:RH:165:ALA:H	1.85	0.41
1:XA:408:A:OP2	4:XD:115:ARG:NH2	2.53	0.41
1:XA:663:A:H2'	1:XA:664:G:C8	2.55	0.41
1:XA:762:C:H2'	1:XA:763:G:C8	2.54	0.41
1:XA:913:A:H1'	1:XA:914:A:OP2	2.19	0.41
1:XA:1245:A:H2'	1:XA:1246:C:C6	2.55	0.41
1:XA:1336:C:H1'	1:XA:1337:G:C2	2.55	0.41
17:XQ:81:ARG:NH1	17:XQ:83:ASP:OD2	2.53	0.41
18:XR:58:LEU:HD12	18:XR:62:GLU:HB3	2.01	0.41
24:YA:279:C:H2'	24:YA:280:C:H6	1.85	0.41
24:YA:1065:U:H1'	24:YA:1074:G:H22	1.85	0.41
24:YA:1535:U:N3	24:YA:1537:C:H1'	2.35	0.41
24:YA:1728:G:H3'	24:YA:1729:A:C5'	2.50	0.41
24:YA:1748:G:H2'	24:YA:1749:A:H8	1.86	0.41
24:YA:1791:A:H3'	24:YA:1792:G:H8	1.86	0.41
24:YA:2342:C:O2'	24:YA:2374:C:H5"	2.20	0.41
24:YA:2540:C:H2'	24:YA:2541:A:O4'	2.20	0.41
24:YA:2783:G:H2'	24:YA:2784:C:C6	2.56	0.41
31:YI:78:THR:HG22	31:YI:141:LYS:HE2	2.01	0.41
1:QA:33:A:H2'	1:QA:34:C:C6	2.55	0.41
1:QA:108:G:H5"	1:QA:109:A:H5"	2.03	0.41
1:QA:137:C:H2'	1:QA:138:G:C8	2.54	0.41
1:QA:619:U:N3	4:QD:134:ASP:OD1	2.35	0.41
1:QA:1152:A:H2'	1:QA:1153:C:C6	2.55	0.41
1:QA:1330:U:OP2	1:QA:1330:U:H6	2.03	0.41
3:QC:124:ILE:HD12	3:QC:130:VAL:HG12	2.03	0.41
12:QL:33:ARG:NH2	12:QL:61:THR:OG1	2.54	0.41
19:QS:32:LYS:HB3	19:QS:57:HIS:CE1	2.56	0.41
24:RA:208:C:H2'	24:RA:209:C:H6	1.85	0.41
24:RA:680:G:H2'	24:RA:681:G:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1220:A:H5'	24:RA:1221:C:OP2	2.20	0.41
24:RA:1550:C:H2'	24:RA:1551:C:H6	1.84	0.41
24:RA:2133:G:N7	24:RA:2157:G:N1	2.68	0.41
24:RA:2210:G:H5'	24:RA:2211:G:C5	2.55	0.41
24:RA:2773:C:OP1	27:RE:164:ARG:NE	2.52	0.41
24:RA:2823:A:OP1	27:RE:113:PHE:HB2	2.21	0.41
25:RB:16:G:H2'	25:RB:17:C:C6	2.55	0.41
28:RF:122:LYS:HB3	28:RF:191:ARG:HG3	2.02	0.41
29:RG:81:LYS:O	29:RG:82:LEU:HB2	2.20	0.41
36:RR:22:ARG:HG2	36:RR:69:ASP:HB3	2.03	0.41
41:RW:86:LEU:HD12	41:RW:96:ILE:HD11	2.02	0.41
41:RW:111:HIS:HD2	41:RW:113:LYS:H	1.68	0.41
1:XA:604:G:H2'	1:XA:605:U:C6	2.55	0.41
1:XA:911:U:H2'	1:XA:912:C:C6	2.55	0.41
12:XL:44:THR:HA	12:XL:45:PRO:HD3	1.81	0.41
17:XQ:69:LYS:HD2	17:XQ:69:LYS:HA	1.81	0.41
20:XT:92:LEU:HD13	20:XT:92:LEU:HA	1.83	0.41
21:XU:12:LYS:HG2	21:XU:22:ARG:HB3	2.02	0.41
24:YA:142:G:H2'	24:YA:143:C:C6	2.56	0.41
24:YA:229:A:OP1	24:YA:229:A:H4'	2.15	0.41
24:YA:440:G:H2'	24:YA:441:U:C6	2.55	0.41
24:YA:463:G:N2	24:YA:466:A:OP2	2.51	0.41
24:YA:524:U:H2'	24:YA:525:U:C6	2.55	0.41
24:YA:1791:A:N6	24:YA:1828:G:O2'	2.46	0.41
24:YA:1799:G:H5"	24:YA:1800:C:C5	2.55	0.41
24:YA:1812:A:H2'	24:YA:1813:G:C8	2.54	0.41
24:YA:2567:G:H2'	24:YA:2568:C:C6	2.55	0.41
24:YA:2685:G:P	38:YT:51:ARG:HH22	2.43	0.41
24:YA:2703:C:H2'	24:YA:2704:C:H6	1.85	0.41
26:YD:69:ARG:HD2	26:YD:105:ILE:HD13	2.02	0.41
36:YR:91:GLN:OE1	36:YR:91:GLN:N	2.53	0.41
47:Y2:42:GLY:O	47:Y2:44:LEU:N	2.45	0.41
1:QA:407:G:H2'	1:QA:408:A:C8	2.56	0.41
1:QA:513:C:H2'	1:QA:514:C:C6	2.55	0.41
1:QA:1100:C:OP2	2:QB:96:ARG:HD3	2.20	0.41
4:QD:68:TYR:HD2	4:QD:97:LEU:HD12	1.86	0.41
12:QL:93:LEU:HD13	12:QL:93:LEU:HA	1.85	0.41
23:QX:15:A:H4'	23:QX:16:A:OP2	2.19	0.41
24:RA:321:G:OP2	28:RF:135:LYS:HD3	2.21	0.41
24:RA:1400:G:H2'	24:RA:1401:G:H8	1.85	0.41
24:RA:1551:C:H2'	24:RA:1552:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1656:C:H2'	24:RA:1657:C:H6	1.85	0.41
24:RA:2060:A:H4'	24:RA:2061:G:OP2	2.21	0.41
24:RA:2649:U:H2'	24:RA:2650:U:C6	2.56	0.41
28:RF:159:GLY:C	28:RF:164:ARG:HH12	2.29	0.41
29:RG:15:VAL:HG11	29:RG:176:LEU:HD22	2.02	0.41
45:R0:68:GLU:OE2	45:R0:82:ARG:NH1	2.53	0.41
53:R8:50:LEU:HD12	53:R8:51:ALA:H	1.84	0.41
1:XA:325:A:OP2	20:XT:70:SER:OG	2.18	0.41
1:XA:370:C:H2'	1:XA:371:G:C8	2.56	0.41
1:XA:437:U:H2'	1:XA:438:G:O4'	2.21	0.41
1:XA:481:G:O2'	1:XA:482:A:C8	2.72	0.41
14:XN:32:SER:HB3	14:XN:41:ARG:HD2	2.02	0.41
14:XN:34:TYR:HD1	14:XN:44:LEU:HD21	1.86	0.41
24:YA:286:C:H2'	24:YA:287:C:H6	1.86	0.41
24:YA:465:G:H21	24:YA:684:G:H1'	1.84	0.41
24:YA:546:C:H5"	24:YA:547:A:N7	2.36	0.41
24:YA:1539:G:H2'	24:YA:1540:G:H8	1.84	0.41
24:YA:1588:C:H2'	24:YA:1589:C:C6	2.55	0.41
24:YA:1821:A:H2'	24:YA:1822:G:C8	2.55	0.41
24:YA:1937:A:O2'	24:YA:1938:A:O5'	2.39	0.41
24:YA:2065:C:H2'	24:YA:2066:C:C6	2.55	0.41
24:YA:2448:A:OP2	24:YA:2499:C:P	2.79	0.41
24:YA:2514:U:H2'	24:YA:2515:C:H6	1.85	0.41
24:YA:2611:U:P	24:YA:2611:U:H3'	2.61	0.41
24:YA:2773:C:H2'	24:YA:2774:C:H6	1.85	0.41
26:YD:77:ALA:HB3	26:YD:117:VAL:HG13	2.02	0.41
29:YG:27:ASN:OD1	29:YG:28:VAL:N	2.53	0.41
34:YP:37:GLY:O	34:YP:40:SER:OG	2.34	0.41
35:YQ:65:PHE:O	35:YQ:104:PHE:C	2.63	0.41
37:YS:66:ALA:HA	37:YS:69:VAL:HG12	2.02	0.41
40:YV:14:VAL:HB	40:YV:96:ILE:HG13	2.01	0.41
48:Y3:38:GLU:N	48:Y3:38:GLU:CD	2.72	0.41
4:QD:116:GLN:O	4:QD:120:LEU:HG	2.21	0.41
4:QD:191:ARG:HD2	4:QD:192:GLU:N	2.35	0.41
16:QP:69:THR:O	16:QP:73:LEU:HD23	2.21	0.41
24:RA:407:G:H2'	24:RA:408:G:C8	2.55	0.41
24:RA:690:G:H2'	24:RA:691:C:C6	2.56	0.41
24:RA:1065:U:H5"	24:RA:1066:U:C6	2.55	0.41
24:RA:1561:G:H2'	24:RA:1562:A:C8	2.55	0.41
24:RA:2347:C:HO2'	51:R6:21:TYR:HH	1.59	0.41
27:RE:144:ARG:HB3	27:RE:145:LYS:H	1.77	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:RG:176:LEU:HD13	29:RG:176:LEU:HA	1.89	0.41
30:RH:107:VAL:HB	30:RH:153:LYS:HZ3	1.86	0.41
41:RW:36:LEU:HD13	41:RW:47:VAL:HG23	2.02	0.41
1:XA:7:G:H5'	1:XA:298:A:O4'	2.20	0.41
1:XA:1454:G:H2'	1:XA:1455:G:H8	1.86	0.41
10:XJ:39:PRO:HA	10:XJ:70:ARG:NE	2.36	0.41
10:XJ:48:THR:HG23	10:XJ:62:HIS:HB3	2.03	0.41
10:XJ:79:ARG:HA	10:XJ:82:ILE:HB	2.02	0.41
15:XO:43:LEU:HD11	24:YA:715:G:H22	1.85	0.41
24:YA:514:A:H2'	24:YA:515:A:C8	2.55	0.41
24:YA:907:U:O2'	35:YQ:101:ARG:NH2	2.51	0.41
24:YA:1291:C:H2'	24:YA:1292:U:C6	2.55	0.41
24:YA:1825:A:H2'	24:YA:1826:G:C8	2.56	0.41
24:YA:2318:G:N2	37:YS:3:ARG:HE	2.18	0.41
24:YA:2514:U:H3	24:YA:2570:G:H1	1.66	0.41
30:YH:119:GLU:O	30:YH:140:LYS:NZ	2.39	0.41
34:YP:6:LEU:HD13	34:YP:6:LEU:HA	1.91	0.41
1:QA:404:U:H5"	4:QD:122:ARG:HH11	1.86	0.41
1:QA:584:G:H2'	1:QA:585:G:H8	1.85	0.41
1:QA:587:G:OP1	8:QH:92:ARG:NH2	2.48	0.41
1:QA:1268:A:H4'	21:QU:19:GLY:C	2.46	0.41
1:QA:1314:C:H2'	1:QA:1315:U:C6	2.56	0.41
1:QA:1336:C:O2'	1:QA:1337:G:O5'	2.37	0.41
1:QA:1351:U:H3	1:QA:1371:G:H1	1.68	0.41
3:QC:150:LYS:HB2	3:QC:201:TYR:HB2	2.03	0.41
7:QG:62:PHE:HA	7:QG:124:LEU:HD12	2.03	0.41
7:QG:115:ARG:HB3	7:QG:118:VAL:HG22	2.02	0.41
13:QM:23:TYR:HD2	13:QM:67:GLU:HA	1.86	0.41
20:QT:54:LYS:NZ	20:QT:100:ILE:HG21	2.36	0.41
24:RA:309:G:H8	24:RA:309:G:P	2.44	0.41
24:RA:407:G:H2'	24:RA:408:G:H8	1.86	0.41
24:RA:415:A:H2'	24:RA:416:C:H6	1.85	0.41
24:RA:448:U:C4	24:RA:583:G:H1'	2.56	0.41
24:RA:623:G:H2'	24:RA:624:C:C6	2.55	0.41
24:RA:693:C:O2'	24:RA:1353:A:N3	2.53	0.41
24:RA:1562:A:H2'	24:RA:1563:G:C8	2.56	0.41
24:RA:1600:C:OP1	42:RX:58:HIS:NE2	2.38	0.41
24:RA:1653:G:H1'	24:RA:1654:A:OP2	2.21	0.41
24:RA:2648:C:H2'	24:RA:2649:U:H6	1.86	0.41
30:RH:4:ILE:HB	30:RH:6:ARG:NH1	2.35	0.41
30:RH:30:LYS:HA	30:RH:30:LYS:HD2	1.80	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:93:U:H2'	1:XA:95:G:O4'	2.20	0.41
1:XA:1229:A:O2'	22:XV:31:C:OP1	2.37	0.41
1:XA:1408:A:C6	1:XA:1494:G:N1	2.89	0.41
8:XH:69:ARG:NH2	8:XH:75:ARG:O	2.54	0.41
10:XJ:34:VAL:HG12	10:XJ:74:ILE:HG12	2.02	0.41
10:XJ:62:HIS:ND1	14:XN:59:ALA:HB3	2.34	0.41
12:XL:85:ILE:HD12	12:XL:85:ILE:HA	1.98	0.41
24:YA:78:A:H2'	24:YA:79:G:H8	1.85	0.41
24:YA:147:U:H2'	24:YA:148:C:C6	2.56	0.41
24:YA:740:U:H2'	24:YA:741:G:H8	1.86	0.41
24:YA:742:G:H2'	24:YA:743:G:C8	2.55	0.41
24:YA:962:G:H2'	24:YA:963:U:C6	2.56	0.41
24:YA:1131:G:H4'	32:YN:82:LEU:HD12	2.01	0.41
24:YA:1614:A:C6	41:YW:91:GLY:HA2	2.56	0.41
24:YA:1754:C:H5'	38:YT:101:PHE:CZ	2.56	0.41
24:YA:2105:C:H2'	24:YA:2106:G:C8	2.55	0.41
25:YB:83:G:H4'	48:Y3:52:HIS:CG	2.55	0.41
28:YF:24:LEU:HD23	28:YF:115:ALA:HA	2.02	0.41
34:YP:94:GLU:O	34:YP:96:THR:HG23	2.21	0.41
35:YQ:116:GLU:OE2	35:YQ:119:ARG:NH2	2.38	0.41
44:YZ:118:GLN:HG2	44:YZ:120:ILE:HD13	2.02	0.41
1:QA:272:C:H2'	1:QA:273:A:C8	2.50	0.41
1:QA:309:G:H2'	1:QA:310:G:H8	1.86	0.41
1:QA:343:U:O2	1:QA:347:G:C6	2.74	0.41
1:QA:674:G:H2'	1:QA:675:A:C8	2.43	0.41
1:QA:1059:C:H2'	1:QA:1060:C:C6	2.55	0.41
1:QA:1129:C:H4'	1:QA:1130:A:H8	1.85	0.41
1:QA:1191:A:H5"	3:QC:4:LYS:HE3	2.03	0.41
1:QA:1384:C:H2'	1:QA:1385:G:H8	1.85	0.41
6:QF:46:ARG:HH21	18:QR:37:VAL:HG11	1.85	0.41
8:QH:38:ILE:HG21	8:QH:111:ILE:HD13	2.03	0.41
9:QI:3:GLN:HG3	9:QI:20:ARG:HD3	2.02	0.41
9:QI:4:TYR:CE1	9:QI:87:GLN:HG3	2.55	0.41
13:QM:17:VAL:HA	13:QM:20:THR:CG2	2.51	0.41
18:QR:70:ILE:O	18:QR:74:ARG:HB2	2.20	0.41
24:RA:935:C:H2'	24:RA:936:C:C6	2.56	0.41
24:RA:1278:A:H2'	24:RA:1279:G:C8	2.55	0.41
24:RA:1656:C:P	27:RE:136:ARG:HE	2.43	0.41
24:RA:1952:A:N3	24:RA:2560:C:O2'	2.40	0.41
24:RA:2037:G:H2'	24:RA:2038:G:H8	1.85	0.41
24:RA:2065:C:H2'	24:RA:2066:C:H6	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2314:C:H2'	24:RA:2315:G:C8	2.56	0.41
24:RA:2728:U:H2'	24:RA:2729:G:H8	1.85	0.41
24:RA:2863:C:H2'	24:RA:2864:G:H8	1.86	0.41
24:RA:2891:G:H5'	24:RA:2892:A:OP1	2.21	0.41
24:RA:2892:A:H2'	24:RA:2893:G:O4'	2.20	0.41
27:RE:34:VAL:HG21	27:RE:77:ILE:HD11	2.01	0.41
28:RF:198:ALA:N	28:RF:200:GLU:OE2	2.53	0.41
29:RG:133:LEU:HD23	29:RG:133:LEU:HA	1.93	0.41
34:RP:138:LEU:HD21	34:RP:144:GLU:HB3	2.03	0.41
1:XA:195:A:H2'	1:XA:196:A:C4	2.55	0.41
1:XA:247:G:OP2	17:XQ:100:LYS:HG3	2.21	0.41
1:XA:1095:U:P	1:XA:1108:G:H1	2.43	0.41
1:XA:1280:A:P	10:XJ:40:LEU:HD21	2.61	0.41
1:XA:1409:C:H2'	1:XA:1410:G:C8	2.54	0.41
2:XB:161:ALA:HA	2:XB:183:PRO:O	2.21	0.41
8:XH:49:GLU:HG2	8:XH:62:TYR:HE2	1.86	0.41
9:XI:10:ARG:NH1	9:XI:75:ASP:OD1	2.54	0.41
11:XK:120:ARG:HA	11:XK:121:PRO:HD3	1.88	0.41
14:XN:47:LEU:HD13	14:XN:50:LYS:HD3	2.02	0.41
20:XT:61:SER:O	20:XT:65:LYS:HG3	2.21	0.41
24:YA:108:U:H2'	24:YA:109:G:C8	2.55	0.41
24:YA:278:A:H2'	24:YA:279:C:C6	2.56	0.41
24:YA:1111:A:OP1	30:YH:3:ARG:NH2	2.53	0.41
24:YA:1252:G:H1	39:YU:37:GLU:HG3	1.85	0.41
24:YA:1293:C:H2'	24:YA:1294:U:C6	2.56	0.41
24:YA:1423:G:H2'	24:YA:1424:G:H8	1.85	0.41
24:YA:1550:C:OP1	24:YA:1727:U:O2'	2.27	0.41
24:YA:2229:C:H2'	24:YA:2230:G:H8	1.85	0.41
1:QA:17:U:H2'	1:QA:18:C:H6	1.86	0.41
1:QA:279:A:OP1	1:QA:280:C:O2'	2.23	0.41
1:QA:404:U:H2'	1:QA:405:U:H6	1.86	0.41
1:QA:501:C:OP1	12:QL:117:ARG:NH2	2.54	0.41
1:QA:924:C:H2'	1:QA:925:G:H8	1.85	0.41
1:QA:954:G:H21	1:QA:1227:A:H62	1.67	0.41
1:QA:1277:C:O2'	1:QA:1279:A:H8	2.03	0.41
2:QB:115:LEU:HD13	2:QB:145:LEU:HG	2.02	0.41
4:QD:98:GLU:HA	4:QD:103:ASN:ND2	2.35	0.41
5:QE:94:ALA:HB2	5:QE:119:LEU:HG	2.03	0.41
7:QG:92:SER:O	7:QG:96:GLN:HG3	2.21	0.41
13:QM:51:ALA:HA	13:QM:54:VAL:HG12	2.03	0.41
16:QP:53:VAL:HG13	16:QP:79:VAL:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:52:A:H2'	24:RA:53:A:C8	2.56	0.41
24:RA:99:U:H4'	24:RA:101:G:O5'	2.19	0.41
24:RA:270(Y):G:H2'	24:RA:270(Z):U:C6	2.56	0.41
24:RA:297:C:OP1	43:RY:87:LYS:HE3	2.20	0.41
24:RA:774:A:O2'	24:RA:775:G:O5'	2.37	0.41
24:RA:811:U:H2'	34:RP:21:ARG:O	2.21	0.41
24:RA:1568:G:OP2	26:RD:63:ARG:NH2	2.48	0.41
24:RA:1680:U:H2'	24:RA:1681:G:O4'	2.20	0.41
24:RA:1889:A:H2'	24:RA:1890:A:C8	2.56	0.41
24:RA:2020:A:H5'	50:R5:12:SER:HB3	2.02	0.41
24:RA:2342:C:O2'	24:RA:2374:C:H5"	2.20	0.41
24:RA:2600:A:H2'	24:RA:2601:C:C6	2.56	0.41
24:RA:2618:G:H21	27:RE:150:VAL:HG21	1.85	0.41
24:RA:2676:C:H2'	24:RA:2677:G:C8	2.56	0.41
24:RA:2747:G:H21	24:RA:2757:A:N6	2.13	0.41
24:RA:2841:C:H2'	24:RA:2842:G:C8	2.56	0.41
25:RB:28:C:H2'	25:RB:29:A:H8	1.86	0.41
26:RD:83:GLU:HB2	26:RD:92:ILE:HD11	2.03	0.41
27:RE:92:THR:OG1	27:RE:93:VAL:N	2.53	0.41
28:RF:116:ASP:OD1	28:RF:119:ARG:NH2	2.54	0.41
29:RG:60:LEU:HD22	29:RG:68:PRO:HB3	2.03	0.41
30:RH:62:LYS:HB3	30:RH:62:LYS:HE2	1.91	0.41
31:RI:93:THR:OG1	31:RI:94:ALA:N	2.53	0.41
34:RP:101:VAL:HB	34:RP:106:LEU:HB2	2.03	0.41
35:RQ:54:MET:HE1	35:RQ:104:PHE:HB3	2.03	0.41
43:RY:17:SER:OG	43:RY:71:LYS:NZ	2.41	0.41
43:RY:63:LYS:HD3	43:RY:64:GLU:N	2.36	0.41
51:R6:23:THR:OG1	51:R6:24:GLU:N	2.54	0.41
53:R8:29:LYS:C	53:R8:31:HIS:H	2.29	0.41
1:XA:536:C:H2'	1:XA:537:G:H8	1.85	0.41
1:XA:582:U:H2'	1:XA:583:A:H8	1.85	0.41
1:XA:646:U:H2'	1:XA:647:C:C6	2.56	0.41
1:XA:923:A:H2'	1:XA:924:C:C6	2.56	0.41
1:XA:986:A:H4'	19:XS:55:LYS:NZ	2.36	0.41
1:XA:1029:G:O2'	1:XA:1032(A):G:N2	2.38	0.41
1:XA:1187:G:H5'	1:XA:1188:A:OP2	2.20	0.41
1:XA:1388:C:H2'	1:XA:1389:C:C6	2.56	0.41
1:XA:1515:C:H2'	1:XA:1516:G:C8	2.56	0.41
2:XB:27:LYS:HD2	2:XB:27:LYS:HA	1.83	0.41
2:XB:47:THR:O	2:XB:51:LEU:HG	2.19	0.41
2:XB:114:ARG:HA	2:XB:114:ARG:HD2	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:XC:10:PHE:C	14:XN:57:ARG:HH22	2.28	0.41
4:XD:108:LEU:HD23	4:XD:174:LEU:HD13	2.02	0.41
4:XD:126:ILE:HG22	4:XD:146:ILE:HD11	2.03	0.41
17:XQ:19:VAL:HG23	17:XQ:44:ALA:HB3	2.02	0.41
17:XQ:50:LYS:HE3	17:XQ:51:TYR:CZ	2.55	0.41
24:YA:110:G:H2'	24:YA:111:A:H8	1.86	0.41
24:YA:137(A):G:H2'	24:YA:139:G:N7	2.36	0.41
24:YA:447:A:C4'	24:YA:449:A:N7	2.83	0.41
24:YA:642:G:H21	24:YA:646:A:H2	1.67	0.41
24:YA:669:G:H2'	24:YA:669:G:N3	2.36	0.41
24:YA:729:G:OP2	26:YD:13:ARG:HD3	2.21	0.41
24:YA:781:A:OP1	26:YD:218:ARG:NH2	2.54	0.41
24:YA:936:C:H2'	24:YA:937:U:C6	2.56	0.41
24:YA:1079:C:H2'	24:YA:1080:C:C6	2.55	0.41
24:YA:1167:U:H2'	24:YA:1168:G:H8	1.86	0.41
24:YA:1709:U:H2'	24:YA:1710:C:C6	2.56	0.41
24:YA:1710:C:H2'	24:YA:1711:C:H6	1.86	0.41
24:YA:1790:C:H2'	24:YA:1791:A:C5	2.56	0.41
24:YA:1820:U:C2	26:YD:202:LYS:HB2	2.56	0.41
24:YA:1871:A:H8	24:YA:1871:A:OP2	2.04	0.41
24:YA:2291:U:O2'	24:YA:2374:C:O2	2.39	0.41
24:YA:2331:G:O2'	24:YA:2336:A:N1	2.50	0.41
24:YA:2695:C:H2'	24:YA:2696:U:C6	2.56	0.41
24:YA:2712:U:H6	24:YA:2712:U:H2'	1.65	0.41
24:YA:2788:C:H4'	24:YA:2809:A:O2'	2.21	0.41
25:YB:13:A:N1	25:YB:69:G:O2'	2.49	0.41
29:YG:43:LEU:HD13	29:YG:43:LEU:HA	1.91	0.41
30:YH:86:GLU:HB3	30:YH:165:ALA:H	1.86	0.41
33:YO:88:ASN:HD21	33:YO:92:GLU:HB2	1.86	0.41
39:YU:92:ARG:C	39:YU:94:ASN:H	2.29	0.41
44:YZ:24:LEU:HD21	44:YZ:86:VAL:HG13	2.03	0.41
49:Y4:49:PHE:H	49:Y4:49:PHE:HD2	1.68	0.41
1:QA:17:U:H2'	1:QA:18:C:C6	2.56	0.41
1:QA:163:C:H2'	1:QA:164:U:H6	1.86	0.41
1:QA:192:U:H2'	1:QA:193:C:C6	2.56	0.41
1:QA:1150:U:O4	1:QA:1151:A:N6	2.54	0.41
1:QA:1342:C:H1'	9:QI:124:GLN:NE2	2.36	0.41
1:QA:1347:G:O6	9:QI:10:ARG:NH2	2.40	0.41
1:QA:1404:C:H2'	1:QA:1405:G:C8	2.55	0.41
4:QD:119:GLN:HA	4:QD:122:ARG:HG2	2.02	0.41
5:QE:91:LEU:HD13	5:QE:120:THR:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:QJ:50:ILE:HA	10:QJ:60:ARG:HG2	2.02	0.41
13:QM:66:LEU:HD13	13:QM:66:LEU:HA	1.72	0.41
17:QQ:45:HIS:CD2	17:QQ:47:PRO:HG3	2.56	0.41
24:RA:93:C:H2'	24:RA:94:G:O4'	2.21	0.41
24:RA:280:C:H2'	24:RA:281:G:O4'	2.21	0.41
24:RA:776:G:N7	24:RA:793:A:O2'	2.52	0.41
24:RA:1106:G:H2'	24:RA:1107:G:C8	2.56	0.41
24:RA:1184:G:OP1	48:R3:29:ARG:NH1	2.54	0.41
24:RA:1657:C:H2'	24:RA:1658:C:C6	2.55	0.41
27:RE:20:ALA:N	33:RO:72:PRO:O	2.48	0.41
30:RH:107:VAL:HG21	30:RH:151:ILE:HG21	2.02	0.41
33:RO:22:ILE:HG13	33:RO:41:ALA:HA	2.02	0.41
35:RQ:122:GLY:HA2	35:RQ:129:THR:HG21	2.03	0.41
44:RZ:35:ARG:HD3	44:RZ:35:ARG:HA	1.86	0.41
44:RZ:131:ARG:HD2	44:RZ:131:ARG:H	1.85	0.41
45:R0:70:GLN:O	45:R0:78:TYR:N	2.51	0.41
46:R1:82:LEU:HD23	46:R1:82:LEU:HA	1.97	0.41
47:R2:17:SER:OG	47:R2:20:GLU:OE2	2.35	0.41
1:XA:363:A:H2'	1:XA:364:A:C8	2.56	0.41
1:XA:406:G:H2'	1:XA:407:G:H8	1.84	0.41
1:XA:738:C:H2'	1:XA:739:C:C6	2.56	0.41
1:XA:958:A:C6	19:XS:55:LYS:HB2	2.55	0.41
1:XA:1061:G:OP1	10:XJ:59:SER:OG	2.37	0.41
1:XA:1145:C:H4'	1:XA:1146:A:H8	1.86	0.41
1:XA:1427:U:H2'	1:XA:1428:A:H8	1.86	0.41
3:XC:184:TYR:HD2	3:XC:201:TYR:HE2	1.69	0.41
24:YA:1566:A:OP2	26:YD:211:ARG:NH2	2.47	0.41
24:YA:1728:G:H3'	24:YA:1729:A:H5"	2.02	0.41
24:YA:2734:A:H5'	24:YA:2735:G:OP2	2.20	0.41
24:YA:2823:A:OP1	27:YE:113:PHE:HB2	2.21	0.41
25:YB:44:G:H5"	25:YB:45:A:OP1	2.21	0.41
29:YG:107:LEU:HD21	29:YG:178:PHE:CE1	2.56	0.41
30:YH:19:VAL:HA	30:YH:24:VAL:HG12	2.04	0.41
32:YN:30:ILE:HG22	32:YN:34:LEU:HD23	2.02	0.41
39:YU:94:ASN:C	39:YU:96:ALA:H	2.29	0.41
42:YX:35:THR:O	42:YX:39:ILE:HG13	2.21	0.41
46:Y1:49:VAL:HG11	46:Y1:70:VAL:HG11	2.02	0.41
51:Y6:44:ARG:O	51:Y6:45:LYS:HD3	2.21	0.41
1:QA:167:G:H2'	1:QA:168:G:H8	1.86	0.40
1:QA:321:A:H2'	1:QA:322:C:C6	2.56	0.40
1:QA:1059:C:H2'	1:QA:1060:C:H6	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1314:C:N4	19:QS:2:PRO:O	2.54	0.40
1:QA:1414:U:H2'	1:QA:1415:G:C8	2.54	0.40
2:QB:16:HIS:HD2	2:QB:210:SER:HA	1.85	0.40
6:QF:94:GLN:OE1	18:QR:32:ARG:NH1	2.49	0.40
12:QL:27:LEU:HD12	12:QL:27:LEU:HA	1.82	0.40
12:QL:104:VAL:HG12	12:QL:107:ALA:HB3	2.04	0.40
20:QT:81:LYS:O	20:QT:85:MET:HG2	2.20	0.40
24:RA:142:G:H2'	24:RA:143:C:H6	1.86	0.40
24:RA:270(W):G:H2'	24:RA:270(X):G:C8	2.56	0.40
24:RA:455:C:O2'	24:RA:456:C:H5'	2.21	0.40
24:RA:519:U:H2'	24:RA:520:G:H8	1.86	0.40
25:RB:42:C:O2	29:RG:93:THR:N	2.45	0.40
25:RB:86:G:H2'	25:RB:87:G:H8	1.86	0.40
30:RH:55:PRO:HG2	30:RH:61:HIS:CE1	2.56	0.40
35:RQ:62:GLY:HA3	35:RQ:107:ALA:O	2.21	0.40
37:RS:25:ARG:HB3	37:RS:40:ILE:HG23	2.02	0.40
37:RS:109:GLY:C	37:RS:111:GLU:H	2.29	0.40
40:RV:24:LYS:HA	40:RV:92:THR:HG23	2.02	0.40
42:RX:21:PHE:HE1	42:RX:92:LEU:HB3	1.86	0.40
49:R4:16:CYS:SG	49:R4:17:GLY:N	2.95	0.40
1:XA:105:G:H2'	1:XA:106:C:C6	2.56	0.40
1:XA:438:G:H4'	4:XD:123:HIS:CD2	2.56	0.40
1:XA:1310:G:HO2'	1:XA:1311:G:P	2.44	0.40
2:XB:45:GLN:HB3	2:XB:46:LYS:HZ2	1.85	0.40
5:XE:147:ASP:O	5:XE:151:LEU:HD23	2.21	0.40
24:YA:286:C:H2'	24:YA:287:C:C6	2.56	0.40
24:YA:327:G:H2'	24:YA:328:U:C6	2.55	0.40
24:YA:1411:C:H3'	24:YA:1412:A:H8	1.86	0.40
24:YA:1444:G:H2'	24:YA:1445:C:C5	2.56	0.40
24:YA:2323:G:H1	24:YA:2332:U:H3	1.68	0.40
24:YA:2339:G:H2'	24:YA:2340:G:C8	2.57	0.40
24:YA:2647:U:H2'	24:YA:2648:C:C6	2.56	0.40
24:YA:2863:C:H2'	24:YA:2864:G:C8	2.56	0.40
27:YE:185:LYS:HA	27:YE:185:LYS:HD2	1.84	0.40
28:YF:152:GLU:N	28:YF:152:GLU:OE2	2.54	0.40
32:YN:114:ARG:O	32:YN:115:ARG:HB3	2.21	0.40
39:YU:61:TRP:HB3	39:YU:93:LYS:O	2.21	0.40
40:YV:5:VAL:HB	40:YV:35:LEU:HD11	2.03	0.40
41:YW:33:ARG:NH2	41:YW:52:GLU:OE1	2.50	0.40
1:QA:381:C:H2'	1:QA:382:A:O4'	2.20	0.40
1:QA:819:A:N7	1:QA:1529:G:N1	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:939:G:H2'	1:QA:940:C:C6	2.55	0.40
1:QA:1314:C:H2'	1:QA:1315:U:H6	1.86	0.40
2:QB:114:ARG:O	2:QB:118:LEU:HG	2.22	0.40
4:QD:156:GLU:OE1	4:QD:156:GLU:N	2.45	0.40
5:QE:103:GLY:C	5:QE:106:PRO:HD2	2.45	0.40
16:QP:19:ILE:O	16:QP:36:ILE:HG22	2.21	0.40
24:RA:13:A:O2'	24:RA:15:G:N7	2.47	0.40
24:RA:270(U):C:H2'	24:RA:270(V):G:C8	2.56	0.40
24:RA:587:C:H4'	24:RA:588:U:O5'	2.20	0.40
24:RA:634:C:H2'	24:RA:635:C:H6	1.86	0.40
24:RA:1847:A:H5'	24:RA:1848:A:OP2	2.21	0.40
24:RA:1921:G:H2'	24:RA:1922:G:H8	1.86	0.40
26:RD:182:LEU:HB2	26:RD:271:ILE:HB	2.03	0.40
32:RN:112:LEU:HD12	32:RN:112:LEU:HA	1.93	0.40
34:RP:7:ARG:HA	34:RP:8:PRO:HD2	1.94	0.40
34:RP:23:PRO:C	34:RP:25:SER:H	2.28	0.40
34:RP:62:LEU:HD12	53:R8:30:ARG:HE	1.86	0.40
41:RW:60:ASN:O	41:RW:61:ASN:ND2	2.53	0.40
1:XA:19:C:H2'	1:XA:20:U:H6	1.86	0.40
1:XA:777:A:H2'	1:XA:778:G:C8	2.56	0.40
1:XA:789:U:O2'	1:XA:791:G:N7	2.54	0.40
1:XA:998(A):C:H2'	1:XA:999:U:C6	2.56	0.40
1:XA:1036:G:H5'	1:XA:1037:C:OP2	2.20	0.40
1:XA:1412:C:H2'	1:XA:1413:A:H8	1.86	0.40
9:XI:50:LEU:HD11	9:XI:81:ILE:HG21	2.02	0.40
16:XP:6:LEU:HD13	16:XP:6:LEU:HA	1.96	0.40
17:XQ:40:LYS:HB2	17:XQ:40:LYS:HE2	1.88	0.40
19:XS:85:LYS:HA	19:XS:85:LYS:HD2	1.90	0.40
24:YA:563:G:H21	39:YU:37:GLU:CD	2.29	0.40
24:YA:730:C:H2'	24:YA:731:C:H6	1.86	0.40
24:YA:1683:C:H2'	24:YA:1684:C:H6	1.86	0.40
28:YF:28:ILE:HD13	28:YF:116:ASP:HB2	2.03	0.40
29:YG:55:LYS:O	29:YG:58:GLN:HG3	2.21	0.40
30:YH:151:ILE:C	30:YH:153:LYS:H	2.27	0.40
31:YI:14:ASP:C	31:YI:16:GLY:H	2.27	0.40
32:YN:118:LYS:HA	32:YN:118:LYS:HD2	1.78	0.40
43:YY:13:VAL:HG12	43:YY:74:PRO:HA	2.02	0.40
1:QA:279:A:OP2	17:QQ:91:ARG:NH2	2.54	0.40
1:QA:324:G:P	20:QT:22:ARG:HE	2.45	0.40
1:QA:1268:A:H2'	1:QA:1269:A:C8	2.56	0.40
1:QA:1347:G:O2'	1:QA:1348:U:OP2	2.38	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1422:G:H2'	1:QA:1423:G:H8	1.87	0.40
16:QP:8:ARG:HA	16:QP:17:TYR:HD1	1.86	0.40
20:QT:85:MET:HE2	20:QT:85:MET:HB3	1.85	0.40
24:RA:150:C:H2'	24:RA:151:C:H6	1.87	0.40
24:RA:1295:C:H2'	24:RA:1296:G:C8	2.57	0.40
24:RA:2188:C:H2'	24:RA:2189:U:O4'	2.21	0.40
31:RI:76:THR:OG1	31:RI:139:GLN:NE2	2.49	0.40
35:RQ:103:MET:HE3	35:RQ:103:MET:HB2	1.91	0.40
1:XA:323:U:O2'	20:XT:22:ARG:HD3	2.21	0.40
1:XA:1255:G:O2'	1:XA:1258:G:N3	2.37	0.40
1:XA:1303:C:H2'	1:XA:1304:G:O4'	2.21	0.40
1:XA:1320:C:O2	19:XS:36:ARG:NH2	2.54	0.40
1:XA:1342:C:H2'	1:XA:1343:G:H8	1.84	0.40
5:XE:72:GLN:C	5:XE:74:GLY:H	2.29	0.40
6:XF:50:TYR:OH	18:XR:75:ILE:O	2.40	0.40
13:XM:65:LYS:HB3	49:Y4:50:VAL:HG21	2.02	0.40
24:YA:27:G:N2	24:YA:513:A:OP2	2.54	0.40
24:YA:186:G:H2'	24:YA:187:G:C8	2.56	0.40
24:YA:864:G:H2'	24:YA:865:C:C6	2.57	0.40
24:YA:1203:G:H1'	24:YA:1242:A:N6	2.36	0.40
24:YA:1345:C:H2'	24:YA:1346:G:H8	1.87	0.40
24:YA:1604:C:O2'	24:YA:1610:A:N1	2.46	0.40
24:YA:1907:G:O6	24:YA:1924:C:N4	2.55	0.40
24:YA:1947:C:H2'	24:YA:1948:G:H8	1.85	0.40
24:YA:1952:A:N3	24:YA:2560:C:O2'	2.43	0.40
24:YA:1990:C:H2'	24:YA:1991:U:C6	2.56	0.40
24:YA:2243:U:H2'	24:YA:2244:U:C6	2.56	0.40
24:YA:2354:G:H4'	45:Y0:35:ASN:ND2	2.36	0.40
24:YA:2626:C:H2'	24:YA:2627:G:C8	2.51	0.40
24:YA:2637:U:H5"	27:YE:82:ARG:NH1	2.35	0.40
24:YA:2661:G:H2'	24:YA:2662:A:C8	2.56	0.40
24:YA:2698:U:H2'	24:YA:2699:C:H6	1.87	0.40
44:YZ:48:PHE:HA	44:YZ:51:ALA:HB3	2.02	0.40
48:Y3:28:LEU:HD22	48:Y3:35:ARG:HD3	2.02	0.40
54:Y9:6:SER:O	54:Y9:6:SER:OG	2.32	0.40
22:XV:4:U:O2'	22:XV:5:G:H8	2.04	0.40
1:QA:173:U:H5"	1:QA:197:A:O4'	2.21	0.40
1:QA:448:A:OP2	1:QA:485:G:N2	2.25	0.40
1:QA:538:G:H2'	1:QA:539:A:C8	2.56	0.40
1:QA:1298:C:H4'	1:QA:1299:A:C5	2.57	0.40
1:QA:1346:A:H1'	1:QA:1347:G:OP2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QC:8:ILE:HD12	3:QC:16:ARG:NH1	2.36	0.40
3:QC:30:ARG:O	3:QC:34:LEU:HD12	2.21	0.40
3:QC:152:ILE:HG12	3:QC:199:LYS:HB3	2.03	0.40
5:QE:121:LYS:HA	5:QE:121:LYS:HD2	1.83	0.40
12:QL:55:VAL:HG12	12:QL:69:TYR:HA	2.04	0.40
20:QT:26:ASN:HB2	20:QT:71:THR:HG23	2.02	0.40
24:RA:137(A):G:O6	24:RA:139:G:O2'	2.34	0.40
24:RA:376:C:H2'	24:RA:377:C:C6	2.56	0.40
24:RA:691:C:H2'	24:RA:692:C:H6	1.86	0.40
24:RA:829:A:N7	24:RA:2248:C:H5'	2.37	0.40
24:RA:1823:G:H2'	24:RA:1824:G:H8	1.86	0.40
24:RA:2287:A:H62	24:RA:2344:U:H3	1.70	0.40
24:RA:2315:G:H2'	24:RA:2316:C:C6	2.55	0.40
24:RA:2377:A:H2'	24:RA:2378:A:C8	2.55	0.40
26:RD:148:GLU:OE1	26:RD:151:LYS:NZ	2.40	0.40
27:RE:114:ALA:HB3	27:RE:160:TYR:HB3	2.02	0.40
27:RE:116:VAL:HG11	27:RE:138:PRO:HD3	2.03	0.40
32:RN:114:ARG:H	32:RN:114:ARG:HG2	1.66	0.40
34:RP:79:ARG:HA	34:RP:79:ARG:HD3	1.95	0.40
37:RS:96:GLY:H	37:RS:99:LYS:HE3	1.87	0.40
53:R8:26:LYS:HA	53:R8:26:LYS:HD2	1.89	0.40
1:XA:79:G:H2'	1:XA:80:G:H8	1.85	0.40
1:XA:165:C:H2'	1:XA:166:G:C8	2.56	0.40
1:XA:636:U:H2'	1:XA:637:G:C8	2.56	0.40
1:XA:822:C:H2'	1:XA:823:G:C8	2.56	0.40
1:XA:1322:C:O2'	1:XA:1323:G:OP2	2.38	0.40
5:XE:43:LEU:HA	5:XE:43:LEU:HD12	1.81	0.40
14:XN:15:LYS:HD3	14:XN:15:LYS:HA	1.89	0.40
16:XP:71:ARG:HH12	16:XP:75:ARG:CZ	2.34	0.40
20:XT:51:GLU:O	20:XT:55:ILE:HG12	2.21	0.40
24:YA:184:C:H2'	24:YA:185:U:C6	2.56	0.40
24:YA:230:U:H2'	24:YA:231:C:H6	1.86	0.40
24:YA:1541:U:H2'	24:YA:1542:G:O4'	2.22	0.40
24:YA:1629:U:H2'	24:YA:1630:G:H8	1.86	0.40
24:YA:1658:C:H2'	24:YA:1659:U:C6	2.57	0.40
24:YA:2257:U:H2'	24:YA:2258:C:C6	2.56	0.40
28:YF:152:GLU:O	28:YF:154:VAL:HG23	2.21	0.40
30:YH:9:ILE:HA	30:YH:10:PRO:HD3	1.89	0.40
47:Y2:42:GLY:C	47:Y2:44:LEU:H	2.25	0.40
1:QA:224:C:H2'	1:QA:225:C:H6	1.86	0.40
1:QA:900:A:H2'	1:QA:901:A:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:947:G:O3'	13:QM:109:THR:OG1	2.38	0.40
1:QA:1137:C:O2'	1:QA:1138:G:H5"	2.21	0.40
1:QA:1308:U:H2'	1:QA:1309:G:C8	2.57	0.40
3:QC:90:GLU:O	3:QC:93:LYS:NZ	2.52	0.40
4:QD:201:GLN:HA	4:QD:204:ILE:HD12	2.03	0.40
5:QE:5:ASP:OD1	5:QE:5:ASP:N	2.55	0.40
13:QM:52:GLU:O	13:QM:56:LEU:HB2	2.22	0.40
24:RA:404:C:H1'	24:RA:405:U:OP2	2.21	0.40
24:RA:479:A:OP1	43:RY:34:LYS:NZ	2.42	0.40
24:RA:1119:C:H2'	24:RA:1120:G:H8	1.86	0.40
24:RA:1165:U:H2'	24:RA:1166:C:C6	2.56	0.40
24:RA:1670:C:H2'	24:RA:1671:U:O4'	2.21	0.40
24:RA:2074:U:H2'	24:RA:2075:U:C6	2.57	0.40
24:RA:2231:C:H2'	24:RA:2232:U:O4'	2.21	0.40
24:RA:2303:G:O2'	29:RG:132:ASN:HB2	2.20	0.40
25:RB:66:A:H61	25:RB:107:U:H2'	1.86	0.40
26:RD:36:PRO:HA	26:RD:62:TYR:O	2.22	0.40
27:RE:6:GLY:HA2	27:RE:51:PHE:CZ	2.57	0.40
38:RT:22:PHE:HA	38:RT:91:ARG:HH12	1.86	0.40
1:XA:338:A:H2'	1:XA:339:C:C6	2.57	0.40
1:XA:993:G:H2'	1:XA:995:C:H41	1.85	0.40
1:XA:1006:C:H2'	1:XA:1007:C:C6	2.57	0.40
1:XA:1304:G:N2	1:XA:1333:A:H62	2.19	0.40
1:XA:1431:C:H2'	1:XA:1432:G:O4'	2.20	0.40
7:XG:20:ASP:OD1	7:XG:21:VAL:N	2.54	0.40
13:XM:40:ASN:HA	13:XM:41:PRO:HD3	1.96	0.40
13:XM:76:ALA:O	13:XM:80:ARG:HG2	2.22	0.40
24:YA:610:C:H2'	24:YA:611:C:H6	1.85	0.40
24:YA:658:C:H2'	24:YA:659:C:C6	2.56	0.40
24:YA:664:C:H2'	24:YA:665:C:H6	1.87	0.40
24:YA:667:U:H2'	24:YA:668:G:O4'	2.21	0.40
24:YA:1165:U:H2'	24:YA:1166:C:H6	1.87	0.40
24:YA:1656:C:P	27:YE:136:ARG:HE	2.44	0.40
24:YA:2055:C:H4'	24:YA:2056:G:H5"	2.04	0.40
29:YG:83:ARG:HG3	29:YG:84:LYS:H	1.85	0.40
29:YG:106:LEU:HA	29:YG:110:ALA:HB3	2.03	0.40
29:YG:124:SER:HB2	29:YG:131:TYR:CE1	2.57	0.40
34:YP:107:LYS:O	34:YP:109:GLY:N	2.55	0.40
35:YQ:5:ARG:HE	35:YQ:6:ARG:H	1.68	0.40
38:YT:107:ASP:O	38:YT:110:ILE:HG12	2.21	0.40
42:YX:21:PHE:HA	42:YX:26:TYR:HE1	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:Y6:9:LEU:HD13	51:Y6:51:GLU:HB2	2.04	0.40
53:Y8:3:LYS:H	53:Y8:3:LYS:HG3	1.68	0.40
22:XV:73:G:H2'	22:XV:74:A:C8	2.56	0.40

All (7) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:YV:53:GLU:CB	50:Y5:59:GLU:OE1[4_445]	1.95	0.25
11:QK:99:GLN:OE1	3:XC:79:ARG:CD[4_555]	2.01	0.19
24:RA:2137:C:OP1	1:XA:999:U:O2'[4_555]	2.05	0.15
30:YH:46:GLU:OE2	43:YY:23:ARG:NH1[4_445]	2.08	0.12
24:RA:306:U:O3'	47:Y2:17:SER:OG[3_555]	2.12	0.08
24:RA:307:G:O3'	47:Y2:15:LYS:NZ[3_555]	2.13	0.07
24:RA:2217:G:OP1	4:XD:159:ARG:NH2[4_555]	2.14	0.06

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	QB	233/256 (91%)	204 (88%)	27 (12%)	2 (1%)	14 48
2	XB	234/256 (91%)	207 (88%)	27 (12%)	0	100 100
3	QC	203/239 (85%)	189 (93%)	13 (6%)	1 (0%)	24 60
3	XC	203/239 (85%)	184 (91%)	18 (9%)	1 (0%)	24 60
4	QD	206/209 (99%)	188 (91%)	18 (9%)	0	100 100
4	XD	206/209 (99%)	191 (93%)	15 (7%)	0	100 100
5	QE	149/162 (92%)	139 (93%)	9 (6%)	1 (1%)	18 54
5	XE	149/162 (92%)	138 (93%)	11 (7%)	0	100 100
6	QF	99/101 (98%)	95 (96%)	4 (4%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	XF	99/101 (98%)	98 (99%)	1 (1%)	0	100	100
7	QG	153/156 (98%)	145 (95%)	8 (5%)	0	100	100
7	XG	153/156 (98%)	148 (97%)	5 (3%)	0	100	100
8	QH	135/138 (98%)	126 (93%)	9 (7%)	0	100	100
8	XH	135/138 (98%)	128 (95%)	7 (5%)	0	100	100
9	QI	123/128 (96%)	113 (92%)	9 (7%)	1 (1%)	16	51
9	XI	124/128 (97%)	116 (94%)	8 (6%)	0	100	100
10	QJ	97/105 (92%)	93 (96%)	4 (4%)	0	100	100
10	XJ	94/105 (90%)	83 (88%)	11 (12%)	0	100	100
11	QK	117/129 (91%)	111 (95%)	6 (5%)	0	100	100
11	XK	114/129 (88%)	110 (96%)	4 (4%)	0	100	100
12	QL	123/132 (93%)	111 (90%)	11 (9%)	1 (1%)	16	51
12	XL	120/132 (91%)	104 (87%)	15 (12%)	1 (1%)	16	51
13	QM	118/126 (94%)	102 (86%)	15 (13%)	1 (1%)	16	51
13	XM	117/126 (93%)	99 (85%)	17 (14%)	1 (1%)	14	48
14	QN	58/61 (95%)	51 (88%)	6 (10%)	1 (2%)	7	36
14	XN	58/61 (95%)	52 (90%)	5 (9%)	1 (2%)	7	36
15	QO	86/89 (97%)	82 (95%)	4 (5%)	0	100	100
15	XO	85/89 (96%)	84 (99%)	1 (1%)	0	100	100
16	QP	82/88 (93%)	79 (96%)	3 (4%)	0	100	100
16	XP	82/88 (93%)	81 (99%)	1 (1%)	0	100	100
17	QQ	98/105 (93%)	93 (95%)	5 (5%)	0	100	100
17	XQ	98/105 (93%)	95 (97%)	3 (3%)	0	100	100
18	QR	68/88 (77%)	66 (97%)	2 (3%)	0	100	100
18	XR	68/88 (77%)	62 (91%)	6 (9%)	0	100	100
19	QS	81/93 (87%)	73 (90%)	8 (10%)	0	100	100
19	XS	82/93 (88%)	68 (83%)	14 (17%)	0	100	100
20	QT	97/106 (92%)	91 (94%)	6 (6%)	0	100	100
20	XT	97/106 (92%)	90 (93%)	6 (6%)	1 (1%)	12	45
21	QU	23/27 (85%)	20 (87%)	3 (13%)	0	100	100
21	XU	23/27 (85%)	23 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
26	RD	270/276 (98%)	245 (91%)	23 (8%)	2 (1%)	18 54
26	YD	270/276 (98%)	248 (92%)	20 (7%)	2 (1%)	18 54
27	RE	203/206 (98%)	170 (84%)	31 (15%)	2 (1%)	12 45
27	YE	203/206 (98%)	166 (82%)	35 (17%)	2 (1%)	12 45
28	RF	200/210 (95%)	189 (94%)	11 (6%)	0	100 100
28	YF	200/210 (95%)	189 (94%)	11 (6%)	0	100 100
29	RG	179/182 (98%)	148 (83%)	29 (16%)	2 (1%)	11 44
29	YG	179/182 (98%)	150 (84%)	27 (15%)	2 (1%)	11 44
30	RH	172/180 (96%)	147 (86%)	20 (12%)	5 (3%)	3 27
30	YH	172/180 (96%)	150 (87%)	18 (10%)	4 (2%)	5 31
31	RI	144/148 (97%)	121 (84%)	20 (14%)	3 (2%)	5 32
31	YI	144/148 (97%)	120 (83%)	21 (15%)	3 (2%)	5 32
32	RN	136/140 (97%)	120 (88%)	15 (11%)	1 (1%)	18 54
32	YN	136/140 (97%)	119 (88%)	17 (12%)	0	100 100
33	RO	120/122 (98%)	112 (93%)	8 (7%)	0	100 100
33	YO	120/122 (98%)	112 (93%)	8 (7%)	0	100 100
34	RP	148/150 (99%)	120 (81%)	26 (18%)	2 (1%)	9 39
34	YP	145/150 (97%)	119 (82%)	25 (17%)	1 (1%)	18 54
35	RQ	139/141 (99%)	119 (86%)	19 (14%)	1 (1%)	18 54
35	YQ	139/141 (99%)	117 (84%)	21 (15%)	1 (1%)	18 54
36	RR	115/118 (98%)	108 (94%)	5 (4%)	2 (2%)	7 36
36	YR	115/118 (98%)	107 (93%)	7 (6%)	1 (1%)	14 48
37	RS	109/112 (97%)	93 (85%)	15 (14%)	1 (1%)	14 48
37	YS	109/112 (97%)	92 (84%)	17 (16%)	0	100 100
38	RT	135/146 (92%)	118 (87%)	15 (11%)	2 (2%)	8 38
38	YT	135/146 (92%)	114 (84%)	19 (14%)	2 (2%)	8 38
39	RU	115/118 (98%)	107 (93%)	7 (6%)	1 (1%)	14 48
39	YU	115/118 (98%)	106 (92%)	8 (7%)	1 (1%)	14 48
40	RV	99/101 (98%)	87 (88%)	11 (11%)	1 (1%)	12 45
40	YV	99/101 (98%)	86 (87%)	12 (12%)	1 (1%)	12 45
41	RW	111/113 (98%)	105 (95%)	5 (4%)	1 (1%)	14 48

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
41	YW	111/113 (98%)	101 (91%)	9 (8%)	1 (1%)	14 48
42	RX	90/96 (94%)	89 (99%)	1 (1%)	0	100 100
42	YX	90/96 (94%)	88 (98%)	2 (2%)	0	100 100
43	RY	105/110 (96%)	101 (96%)	4 (4%)	0	100 100
43	YY	105/110 (96%)	99 (94%)	6 (6%)	0	100 100
44	RZ	181/206 (88%)	146 (81%)	32 (18%)	3 (2%)	7 36
44	YZ	181/206 (88%)	149 (82%)	29 (16%)	3 (2%)	7 36
45	R0	79/85 (93%)	74 (94%)	5 (6%)	0	100 100
45	Y0	72/85 (85%)	69 (96%)	3 (4%)	0	100 100
46	R1	95/98 (97%)	86 (90%)	9 (10%)	0	100 100
46	Y1	91/98 (93%)	83 (91%)	8 (9%)	0	100 100
47	R2	67/72 (93%)	63 (94%)	3 (4%)	1 (2%)	8 38
47	Y2	67/72 (93%)	63 (94%)	3 (4%)	1 (2%)	8 38
48	R3	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
48	Y3	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
49	R4	67/71 (94%)	53 (79%)	13 (19%)	1 (2%)	8 38
49	Y4	67/71 (94%)	53 (79%)	13 (19%)	1 (2%)	8 38
50	R5	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
50	Y5	57/60 (95%)	52 (91%)	5 (9%)	0	100 100
51	R6	51/54 (94%)	51 (100%)	0	0	100 100
51	Y6	51/54 (94%)	47 (92%)	4 (8%)	0	100 100
52	R7	45/49 (92%)	45 (100%)	0	0	100 100
52	Y7	46/49 (94%)	45 (98%)	1 (2%)	0	100 100
53	R8	62/65 (95%)	48 (77%)	11 (18%)	3 (5%)	2 19
53	Y8	62/65 (95%)	47 (76%)	13 (21%)	2 (3%)	3 25
54	R9	35/37 (95%)	35 (100%)	0	0	100 100
54	Y9	35/37 (95%)	33 (94%)	2 (6%)	0	100 100
All	All	11449/12128 (94%)	10319 (90%)	1055 (9%)	75 (1%)	18 54

All (75) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
27	RE	18	ASP

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Mol	Chain	Res	Type
31	RI	15	VAL
38	RT	124	ASP
44	RZ	53	ILE
53	R8	30	ARG
27	YE	18	ASP
30	YH	86	GLU
30	YH	152	ARG
31	YI	15	VAL
38	YT	123	GLN
38	YT	124	ASP
44	YZ	53	ILE
53	Y8	30	ARG
3	QC	12	LEU
14	QN	17	LYS
26	RD	243	GLY
34	RP	108	LYS
36	RR	3	HIS
38	RT	123	GLN
53	R8	29	LYS
12	XL	105	TYR
14	XN	17	LYS
34	YP	108	LYS
53	Y8	29	LYS
12	QL	46	LYS
27	RE	83	ASP
30	RH	86	GLU
30	RH	87	LEU
30	RH	152	ARG
31	RI	10	GLU
32	RN	22	THR
36	RR	4	LEU
37	RS	111	GLU
40	RV	44	LYS
41	RW	66	GLU
49	R4	47	GLN
26	YD	243	GLY
27	YE	83	ASP
29	YG	81	LYS
39	YU	92	ARG
41	YW	66	GLU
49	Y4	47	GLN
9	QI	107	ARG

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Mol	Chain	Res	Type
13	QM	14	ARG
29	RG	81	LYS
39	RU	92	ARG
44	RZ	52	SER
47	R2	70	GLN
29	YG	83	ARG
30	YH	87	LEU
35	YQ	78	PRO
47	Y2	70	GLN
29	RG	82	LEU
30	RH	12	PRO
35	RQ	78	PRO
3	XC	12	LEU
13	XM	13	LYS
30	YH	12	PRO
31	YI	123	LEU
36	YR	4	LEU
40	YV	44	LYS
44	YZ	52	SER
30	RH	129	THR
26	YD	36	PRO
53	R8	53	PRO
26	RD	36	PRO
5	QE	74	GLY
34	RP	10	PRO
44	RZ	166	SER
2	QB	208	ILE
31	RI	16	GLY
31	YI	16	GLY
44	YZ	165	VAL
2	QB	232	PRO
20	XT	97	ALA

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	QB	203/220 (92%)	202 (100%)	1 (0%)	81 82
2	XB	204/220 (93%)	202 (99%)	2 (1%)	68 76
3	QC	159/188 (85%)	156 (98%)	3 (2%)	50 67
3	XC	159/188 (85%)	158 (99%)	1 (1%)	78 81
4	QD	180/181 (99%)	178 (99%)	2 (1%)	65 74
4	XD	180/181 (99%)	176 (98%)	4 (2%)	45 64
5	QE	116/123 (94%)	114 (98%)	2 (2%)	53 68
5	XE	116/123 (94%)	114 (98%)	2 (2%)	53 68
6	QF	90/90 (100%)	90 (100%)	0	100 100
6	XF	90/90 (100%)	90 (100%)	0	100 100
7	QG	126/127 (99%)	125 (99%)	1 (1%)	73 77
7	XG	126/127 (99%)	126 (100%)	0	100 100
8	QH	118/119 (99%)	117 (99%)	1 (1%)	73 77
8	XH	118/119 (99%)	116 (98%)	2 (2%)	53 68
9	QI	96/99 (97%)	95 (99%)	1 (1%)	68 76
9	XI	97/99 (98%)	96 (99%)	1 (1%)	68 76
10	QJ	89/92 (97%)	87 (98%)	2 (2%)	45 64
10	XJ	86/92 (94%)	84 (98%)	2 (2%)	44 64
11	QK	90/99 (91%)	90 (100%)	0	100 100
11	XK	88/99 (89%)	86 (98%)	2 (2%)	44 64
12	QL	104/109 (95%)	103 (99%)	1 (1%)	68 76
12	XL	103/109 (94%)	101 (98%)	2 (2%)	50 67
13	QM	96/101 (95%)	91 (95%)	5 (5%)	21 44
13	XM	95/101 (94%)	93 (98%)	2 (2%)	47 65
14	QN	49/50 (98%)	49 (100%)	0	100 100
14	XN	49/50 (98%)	49 (100%)	0	100 100
15	QO	79/80 (99%)	79 (100%)	0	100 100
15	XO	79/80 (99%)	79 (100%)	0	100 100
16	QP	72/74 (97%)	72 (100%)	0	100 100
16	XP	72/74 (97%)	72 (100%)	0	100 100
17	QQ	95/97 (98%)	95 (100%)	0	100 100
17	XQ	95/97 (98%)	95 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
18	QR	61/77 (79%)	61 (100%)	0	100	100
18	XR	61/77 (79%)	61 (100%)	0	100	100
19	QS	72/80 (90%)	71 (99%)	1 (1%)	59	71
19	XS	73/80 (91%)	73 (100%)	0	100	100
20	QT	76/82 (93%)	75 (99%)	1 (1%)	61	72
20	XT	76/82 (93%)	75 (99%)	1 (1%)	61	72
21	QU	20/22 (91%)	20 (100%)	0	100	100
21	XU	20/22 (91%)	20 (100%)	0	100	100
26	RD	214/218 (98%)	213 (100%)	1 (0%)	81	82
26	YD	214/218 (98%)	212 (99%)	2 (1%)	70	76
27	RE	165/166 (99%)	162 (98%)	3 (2%)	51	67
27	YE	165/166 (99%)	164 (99%)	1 (1%)	78	81
28	RF	161/166 (97%)	161 (100%)	0	100	100
28	YF	161/166 (97%)	161 (100%)	0	100	100
29	RG	155/156 (99%)	153 (99%)	2 (1%)	61	72
29	YG	155/156 (99%)	153 (99%)	2 (1%)	61	72
30	RH	145/148 (98%)	144 (99%)	1 (1%)	76	79
30	YH	145/148 (98%)	143 (99%)	2 (1%)	59	71
31	RI	122/124 (98%)	121 (99%)	1 (1%)	73	77
31	YI	122/124 (98%)	122 (100%)	0	100	100
32	RN	117/119 (98%)	116 (99%)	1 (1%)	70	76
32	YN	117/119 (98%)	116 (99%)	1 (1%)	70	76
33	RO	100/100 (100%)	100 (100%)	0	100	100
33	YO	100/100 (100%)	100 (100%)	0	100	100
34	RP	116/116 (100%)	115 (99%)	1 (1%)	70	76
34	YP	114/116 (98%)	113 (99%)	1 (1%)	70	76
35	RQ	111/111 (100%)	110 (99%)	1 (1%)	70	76
35	YQ	111/111 (100%)	110 (99%)	1 (1%)	70	76
36	RR	100/101 (99%)	100 (100%)	0	100	100
36	YR	100/101 (99%)	100 (100%)	0	100	100
37	RS	87/88 (99%)	86 (99%)	1 (1%)	65	74

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
37	YS	87/88 (99%)	86 (99%)	1 (1%)	65 74
38	RT	120/127 (94%)	120 (100%)	0	100 100
38	YT	120/127 (94%)	120 (100%)	0	100 100
39	RU	93/94 (99%)	92 (99%)	1 (1%)	65 74
39	YU	93/94 (99%)	92 (99%)	1 (1%)	65 74
40	RV	82/82 (100%)	79 (96%)	3 (4%)	30 52
40	YV	82/82 (100%)	79 (96%)	3 (4%)	30 52
41	RW	92/92 (100%)	92 (100%)	0	100 100
41	YW	92/92 (100%)	90 (98%)	2 (2%)	45 64
42	RX	74/78 (95%)	74 (100%)	0	100 100
42	YX	74/78 (95%)	74 (100%)	0	100 100
43	RY	88/91 (97%)	87 (99%)	1 (1%)	65 74
43	YY	88/91 (97%)	87 (99%)	1 (1%)	65 74
44	RZ	162/179 (90%)	160 (99%)	2 (1%)	63 73
44	YZ	162/179 (90%)	159 (98%)	3 (2%)	50 67
45	R0	65/67 (97%)	65 (100%)	0	100 100
45	Y0	60/67 (90%)	60 (100%)	0	100 100
46	R1	82/83 (99%)	81 (99%)	1 (1%)	63 73
46	Y1	78/83 (94%)	78 (100%)	0	100 100
47	R2	64/67 (96%)	61 (95%)	3 (5%)	23 46
47	Y2	64/67 (96%)	64 (100%)	0	100 100
48	R3	51/52 (98%)	50 (98%)	1 (2%)	48 66
48	Y3	51/52 (98%)	45 (88%)	6 (12%)	5 21
49	R4	62/63 (98%)	61 (98%)	1 (2%)	55 70
49	Y4	62/63 (98%)	61 (98%)	1 (2%)	55 70
50	R5	51/52 (98%)	51 (100%)	0	100 100
50	Y5	51/52 (98%)	49 (96%)	2 (4%)	28 50
51	R6	51/52 (98%)	51 (100%)	0	100 100
51	Y6	51/52 (98%)	51 (100%)	0	100 100
52	R7	40/42 (95%)	40 (100%)	0	100 100
52	Y7	41/42 (98%)	41 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
53	R8	54/55 (98%)	53 (98%)	1 (2%)	50 67
53	Y8	54/55 (98%)	53 (98%)	1 (2%)	50 67
54	R9	34/34 (100%)	34 (100%)	0	100 100
54	Y9	34/34 (100%)	34 (100%)	0	100 100
All	All	9684/10066 (96%)	9585 (99%)	99 (1%)	68 76

All (99) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	QB	69	LEU
3	QC	34	LEU
3	QC	55	VAL
3	QC	90	GLU
4	QD	40	PRO
4	QD	101	LEU
5	QE	13	ILE
5	QE	127	ASN
7	QG	29	LYS
8	QH	129	VAL
9	QI	28	VAL
10	QJ	71	LEU
10	QJ	90	LEU
12	QL	24	VAL
13	QM	20	THR
13	QM	22	ILE
13	QM	61	GLU
13	QM	66	LEU
13	QM	77	ASN
19	QS	67	VAL
20	QT	14	LYS
26	RD	36	PRO
27	RE	49	LEU
27	RE	117	MET
27	RE	133	LYS
29	RG	30	GLU
29	RG	176	LEU
30	RH	162	ILE
31	RI	9	LEU
32	RN	26	LEU
34	RP	45	LEU
35	RQ	81	VAL

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Mol	Chain	Res	Type
37	RS	85	VAL
39	RU	90	VAL
40	RV	40	LEU
40	RV	46	VAL
40	RV	50	PRO
43	RY	90	LEU
44	RZ	58	VAL
44	RZ	61	LEU
46	R1	87	PRO
47	R2	21	LEU
47	R2	44	LEU
47	R2	53	LEU
48	R3	37	LEU
49	R4	50	VAL
53	R8	60	LEU
2	XB	9	GLU
2	XB	145	LEU
3	XC	130	VAL
4	XD	19	LEU
4	XD	88	VAL
4	XD	101	LEU
4	XD	176	LEU
5	XE	11	ILE
5	XE	105	VAL
8	XH	129	VAL
8	XH	135	CYS
9	XI	2	GLU
10	XJ	5	ARG
10	XJ	82	ILE
11	XK	30	VAL
11	XK	66	LEU
12	XL	24	VAL
12	XL	48	PRO
13	XM	25	ILE
13	XM	96	LEU
20	XT	50	GLU
26	YD	36	PRO
26	YD	73	VAL
27	YE	34	VAL
29	YG	28	VAL
29	YG	120	LEU
30	YH	24	VAL

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Mol	Chain	Res	Type
30	YH	171	LEU
32	YN	34	LEU
34	YP	138	LEU
35	YQ	81	VAL
37	YS	85	VAL
39	YU	90	VAL
40	YV	20	LEU
40	YV	46	VAL
40	YV	50	PRO
41	YW	17	VAL
41	YW	23	LEU
43	YY	45	VAL
44	YZ	61	LEU
44	YZ	141	VAL
44	YZ	165	VAL
48	Y3	3	ARG
48	Y3	4	LEU
48	Y3	37	LEU
48	Y3	38	GLU
48	Y3	40	THR
48	Y3	44	ARG
49	Y4	55	ARG
50	Y5	36	CYS
50	Y5	58	LEU
53	Y8	14	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (59) such sidechains are listed below:

Mol	Chain	Res	Type
3	QC	98	ASN
3	QC	123	GLN
3	QC	170	GLN
5	QE	141	GLN
7	QG	86	GLN
8	QH	82	HIS
9	QI	124	GLN
11	QK	62	GLN
11	QK	99	GLN
13	QM	12	ASN
15	QO	62	GLN
19	QS	56	GLN
20	QT	73	HIS

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Mol	Chain	Res	Type
26	RD	87	ASN
26	RD	96	HIS
26	RD	253	GLN
27	RE	129	HIS
29	RG	40	ASN
34	RP	13	ASN
35	RQ	57	HIS
35	RQ	141	GLN
36	RR	31	HIS
36	RR	71	GLN
41	RW	34	ASN
44	RZ	55	HIS
45	R0	3	HIS
46	R1	47	GLN
47	R2	9	GLN
48	R3	46	ASN
49	R4	40	HIS
2	XB	16	HIS
5	XE	72	GLN
6	XF	7	ASN
7	XG	28	ASN
7	XG	64	GLN
11	XK	104	GLN
13	XM	101	GLN
15	XO	37	ASN
15	XO	50	HIS
18	XR	36	ASN
19	XS	47	HIS
26	YD	126	GLN
26	YD	166	GLN
26	YD	253	GLN
28	YF	40	GLN
29	YG	40	ASN
29	YG	79	ASN
34	YP	9	ASN
35	YQ	57	HIS
36	YR	31	HIS
36	YR	71	GLN
39	YU	81	HIS
39	YU	94	ASN
41	YW	34	ASN
43	YY	6	HIS

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Mol	Chain	Res	Type
44	YZ	55	HIS
47	Y2	38	GLN
47	Y2	46	GLN
47	Y2	65	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	QA	1499/1521 (98%)	271 (18%)	37 (2%)
1	XA	1498/1521 (98%)	254 (16%)	30 (2%)
22	QV	76/77 (98%)	15 (19%)	1 (1%)
22	XV	76/77 (98%)	17 (22%)	1 (1%)
23	QX	18/19 (94%)	5 (27%)	2 (11%)
23	XX	18/19 (94%)	5 (27%)	1 (5%)
24	RA	2879/2915 (98%)	571 (19%)	41 (1%)
24	YA	2880/2915 (98%)	576 (20%)	42 (1%)
25	RB	119/122 (97%)	18 (15%)	1 (0%)
25	YB	119/122 (97%)	21 (17%)	1 (0%)
All	All	9182/9308 (98%)	1753 (19%)	157 (1%)

All (1753) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	QA	6	G
1	QA	9	G
1	QA	32	A
1	QA	39	G
1	QA	47	C
1	QA	48	C
1	QA	51	A
1	QA	64	G
1	QA	65	U
1	QA	66	G
1	QA	76	G
1	QA	90	C
1	QA	91	C
1	QA	95	G
1	QA	101	A
1	QA	108	G
1	QA	116	A
1	QA	120	A

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Mol	Chain	Res	Type
1	QA	121	C
1	QA	129(A)	G
1	QA	144	G
1	QA	146	G
1	QA	157	G
1	QA	158	G
1	QA	159	G
1	QA	162	A
1	QA	169	C
1	QA	173	U
1	QA	174	C
1	QA	182	U
1	QA	190	G
1	QA	191(A)	G
1	QA	195	A
1	QA	197	A
1	QA	208	U
1	QA	209	U
1	QA	216	G
1	QA	244	U
1	QA	245	C
1	QA	247	G
1	QA	250	A
1	QA	251	G
1	QA	254	G
1	QA	262	A
1	QA	267	C
1	QA	270	A
1	QA	281	G
1	QA	289	G
1	QA	321	A
1	QA	328	C
1	QA	329	A
1	QA	332	G
1	QA	339	C
1	QA	343	U
1	QA	344	A
1	QA	346	G
1	QA	347	G
1	QA	348	G
1	QA	352	C
1	QA	353	A

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Mol	Chain	Res	Type
1	QA	354	G
1	QA	356	A
1	QA	367	U
1	QA	372	C
1	QA	373	A
1	QA	390	C
1	QA	397	A
1	QA	398	C
1	QA	411	A
1	QA	412	A
1	QA	413	G
1	QA	421	U
1	QA	422	C
1	QA	423	G
1	QA	424	G
1	QA	428	G
1	QA	429	U
1	QA	430	A
1	QA	442	C
1	QA	466	C
1	QA	482	A
1	QA	485	G
1	QA	486	U
1	QA	496	A
1	QA	497	U
1	QA	505	G
1	QA	509	A
1	QA	510	A
1	QA	511	C
1	QA	518	C
1	QA	521	G
1	QA	527	G
1	QA	532	A
1	QA	533	A
1	QA	545	C
1	QA	547	A
1	QA	559	A
1	QA	560	U
1	QA	565	U
1	QA	568	G
1	QA	572	A
1	QA	573	A

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Mol	Chain	Res	Type
1	QA	576	G
1	QA	577	G
1	QA	596	C
1	QA	618	C
1	QA	630	G
1	QA	631	G
1	QA	653	A
1	QA	665	A
1	QA	666	G
1	QA	686	U
1	QA	688	G
1	QA	701	C
1	QA	702	A
1	QA	703	G
1	QA	704	A
1	QA	722	A
1	QA	731	G
1	QA	748	C
1	QA	754	C
1	QA	755	G
1	QA	760	G
1	QA	777	A
1	QA	792	A
1	QA	793	U
1	QA	794	A
1	QA	813	U
1	QA	817	C
1	QA	819	A
1	QA	821	G
1	QA	828	A
1	QA	841	U
1	QA	842	C
1	QA	843	U
1	QA	848	C
1	QA	859	A
1	QA	871	U
1	QA	872	A
1	QA	873	A
1	QA	889	A
1	QA	891	U
1	QA	902	G
1	QA	914	A

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Mol	Chain	Res	Type
1	QA	926	G
1	QA	927	G
1	QA	934	C
1	QA	935	A
1	QA	960	U
1	QA	961	U
1	QA	968	A
1	QA	969	A
1	QA	971	G
1	QA	972	C
1	QA	974	A
1	QA	975	A
1	QA	976	G
1	QA	977	A
1	QA	982	U
1	QA	991	U
1	QA	992	U
1	QA	993	G
1	QA	994	A
1	QA	1001	G
1	QA	1004	A
1	QA	1006	C
1	QA	1009	G
1	QA	1020	U
1	QA	1024	G
1	QA	1025	U
1	QA	1028	C
1	QA	1029	G
1	QA	1030	C
1	QA	1031	G
1	QA	1032(A)	G
1	QA	1033	G
1	QA	1034	G
1	QA	1042	G
1	QA	1054	C
1	QA	1064	G
1	QA	1065	U
1	QA	1066	C
1	QA	1080	A
1	QA	1081	G
1	QA	1082	G
1	QA	1094	G

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Mol	Chain	Res	Type
1	QA	1095	U
1	QA	1101	A
1	QA	1124	G
1	QA	1125	U
1	QA	1126	U
1	QA	1130	A
1	QA	1131	G
1	QA	1136	U
1	QA	1137	C
1	QA	1138	G
1	QA	1139	G
1	QA	1146	A
1	QA	1157	A
1	QA	1158	C
1	QA	1159	U
1	QA	1160	G
1	QA	1181	G
1	QA	1183	A
1	QA	1187	G
1	QA	1193	G
1	QA	1196	U
1	QA	1201	A
1	QA	1202	G
1	QA	1212	U
1	QA	1213	A
1	QA	1215	G
1	QA	1224	G
1	QA	1226	C
1	QA	1227	A
1	QA	1228	C
1	QA	1236	A
1	QA	1238	A
1	QA	1240	U
1	QA	1241	G
1	QA	1256	A
1	QA	1257	U
1	QA	1258	G
1	QA	1260	C
1	QA	1270	C
1	QA	1280	A
1	QA	1281	U
1	QA	1286	A

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Mol	Chain	Res	Type
1	QA	1287	A
1	QA	1297	C
1	QA	1298	C
1	QA	1299	A
1	QA	1301	U
1	QA	1302	U
1	QA	1303	C
1	QA	1305	G
1	QA	1320	C
1	QA	1321	C
1	QA	1322	C
1	QA	1323	G
1	QA	1331	G
1	QA	1334	G
1	QA	1335	C
1	QA	1336	C
1	QA	1337	G
1	QA	1346	A
1	QA	1347	G
1	QA	1348	U
1	QA	1353	G
1	QA	1362(A)	C
1	QA	1364	U
1	QA	1397	C
1	QA	1398	A
1	QA	1419	G
1	QA	1442	G
1	QA	1446	A
1	QA	1447	G
1	QA	1452	C
1	QA	1453	G
1	QA	1492	A
1	QA	1494	G
1	QA	1499	A
1	QA	1502	A
1	QA	1504	G
1	QA	1506	U
1	QA	1517	G
1	QA	1520	G
1	QA	1527	C
1	QA	1528	U
1	QA	1529	G

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Mol	Chain	Res	Type
1	QA	1530	G
22	QV	4	U
22	QV	5	G
22	QV	8	U
22	QV	18	U
22	QV	19	G
22	QV	20	G
22	QV	22	A
22	QV	48	U
22	QV	49	C
22	QV	55	U
22	QV	64	U
22	QV	65	C
22	QV	68	U
22	QV	76	C
22	QV	77	A
23	QX	10	G
23	QX	14	U
23	QX	16	A
23	QX	21	G
23	QX	22	G
24	RA	10	G
24	RA	14	A
24	RA	15	G
24	RA	34	C
24	RA	46	C
24	RA	51	G
24	RA	55	G
24	RA	61	G
24	RA	72	U
24	RA	73	A
24	RA	74	A
24	RA	75	G
24	RA	82	G
24	RA	83	G
24	RA	101	G
24	RA	102	G
24	RA	103	A
24	RA	118	A
24	RA	120	U
24	RA	131	G
24	RA	140	A

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Mol	Chain	Res	Type
24	RA	161	U
24	RA	177	G
24	RA	181	A
24	RA	188	G
24	RA	196	A
24	RA	199	A
24	RA	201	C
24	RA	214	G
24	RA	215	G
24	RA	216	A
24	RA	221	A
24	RA	222	A
24	RA	223	A
24	RA	229	A
24	RA	230	U
24	RA	233	A
24	RA	248	G
24	RA	249	C
24	RA	252	G
24	RA	265	A
24	RA	266	G
24	RA	270(L)	U
24	RA	270(M)	U
24	RA	270(N)	G
24	RA	270(P)	C
24	RA	270(Y)	G
24	RA	271(C)	U
24	RA	273(F)	C
24	RA	275	G
24	RA	276	A
24	RA	277	C
24	RA	283	A
24	RA	294	A
24	RA	298	G
24	RA	299	A
24	RA	308	G
24	RA	309	G
24	RA	311	A
24	RA	312	G
24	RA	323	G
24	RA	324	A
24	RA	329	G

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Mol	Chain	Res	Type
24	RA	330	A
24	RA	342	G
24	RA	346	A
24	RA	352	G
24	RA	363(F)	A
24	RA	364	C
24	RA	371	A
24	RA	372	G
24	RA	373	U
24	RA	386	G
24	RA	395	U
24	RA	405	U
24	RA	406	G
24	RA	407	G
24	RA	411	G
24	RA	412	A
24	RA	428	A
24	RA	444	C
24	RA	448	U
24	RA	451	C
24	RA	452	G
24	RA	455	C
24	RA	456	C
24	RA	457	A
24	RA	470	A
24	RA	481	G
24	RA	504	U
24	RA	505	A
24	RA	509	C
24	RA	513	A
24	RA	527	C
24	RA	531	C
24	RA	532	A
24	RA	533	G
24	RA	537	C
24	RA	539	G
24	RA	540	G
24	RA	541	C
24	RA	546	C
24	RA	547	A
24	RA	563	G
24	RA	573	G

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Mol	Chain	Res	Type
24	RA	574	C
24	RA	575	A
24	RA	583	G
24	RA	588	U
24	RA	603	A
24	RA	607	U
24	RA	614	U
24	RA	615	G
24	RA	617	G
24	RA	621	A
24	RA	627	A
24	RA	631	A
24	RA	637	A
24	RA	638	G
24	RA	645	C
24	RA	646	A
24	RA	647	G
24	RA	651	G
24	RA	652	C
24	RA	654	A
24	RA	654(A)	G
24	RA	669	G
24	RA	686	G
24	RA	708	C
24	RA	717	G
24	RA	722	A
24	RA	726	G
24	RA	730	C
24	RA	731	C
24	RA	753	C
24	RA	761	A
24	RA	775	G
24	RA	776	G
24	RA	782	A
24	RA	783	A
24	RA	784	A
24	RA	785	G
24	RA	788	A
24	RA	790	C
24	RA	791	C
24	RA	792	G
24	RA	805	G

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Mol	Chain	Res	Type
24	RA	811	U
24	RA	812	C
24	RA	819	A
24	RA	827	U
24	RA	828	U
24	RA	831	G
24	RA	847	U
24	RA	856	C
24	RA	857	C
24	RA	859	G
24	RA	869	G
24	RA	882	G
24	RA	884	C
24	RA	885	C
24	RA	886	C
24	RA	888	C
24	RA	889	C
24	RA	893	C
24	RA	896	A
24	RA	897	C
24	RA	900	A
24	RA	901	A
24	RA	907	U
24	RA	910	A
24	RA	914	C
24	RA	915	C
24	RA	917	A
24	RA	932	G
24	RA	941	A
24	RA	945	A
24	RA	946	G
24	RA	957	A
24	RA	959	A
24	RA	961	C
24	RA	973	A
24	RA	974	G
24	RA	974(A)	C
24	RA	980	A
24	RA	983	A
24	RA	996	A
24	RA	1003	G
24	RA	1009	A

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Mol	Chain	Res	Type
24	RA	1012	U
24	RA	1013	C
24	RA	1022	G
24	RA	1023	U
24	RA	1025	G
24	RA	1026	U
24	RA	1027	A
24	RA	1033	U
24	RA	1042	G
24	RA	1044	G
24	RA	1045	A
24	RA	1046	A
24	RA	1050	A
24	RA	1053	C
24	RA	1054	A
24	RA	1055	G
24	RA	1057	A
24	RA	1060	U
24	RA	1061	U
24	RA	1065	U
24	RA	1066	U
24	RA	1071	G
24	RA	1073	A
24	RA	1074	G
24	RA	1077	A
24	RA	1078	U
24	RA	1082	U
24	RA	1083	U
24	RA	1084	A
24	RA	1085	A
24	RA	1086	A
24	RA	1087	G
24	RA	1088	A
24	RA	1091	G
24	RA	1093	G
24	RA	1096	A
24	RA	1110	G
24	RA	1111	A
24	RA	1112	G
24	RA	1122	G
24	RA	1130	U
24	RA	1131	G

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Mol	Chain	Res	Type
24	RA	1135	C
24	RA	1136	G
24	RA	1140	C
24	RA	1142(A)	A
24	RA	1152	C
24	RA	1173	G
24	RA	1174	A
24	RA	1175	U
24	RA	1176	G
24	RA	1178	C
24	RA	1181	C
24	RA	1195	G
24	RA	1204	A
24	RA	1205	U
24	RA	1206	G
24	RA	1210	A
24	RA	1211	U
24	RA	1220	A
24	RA	1236	G
24	RA	1238	G
24	RA	1253	A
24	RA	1256	G
24	RA	1265	A
24	RA	1272	A
24	RA	1273	U
24	RA	1286	A
24	RA	1300	U
24	RA	1301	A
24	RA	1312	U
24	RA	1313	U
24	RA	1314	C
24	RA	1321	A
24	RA	1329	U
24	RA	1341	U
24	RA	1349	A
24	RA	1365	A
24	RA	1370	C
24	RA	1378	A
24	RA	1379	A
24	RA	1380	G
24	RA	1384	A
24	RA	1385	G

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Mol	Chain	Res	Type
24	RA	1390	U
24	RA	1395	A
24	RA	1407	C
24	RA	1408	C
24	RA	1411	C
24	RA	1416	G
24	RA	1419	A
24	RA	1420	U
24	RA	1421	G
24	RA	1428	C
24	RA	1444(A)	A
24	RA	1445	C
24	RA	1449	A
24	RA	1449(A)	G
24	RA	1460	A
24	RA	1461	G
24	RA	1471	A
24	RA	1472	A
24	RA	1473	G
24	RA	1474	C
24	RA	1475	G
24	RA	1480	G
24	RA	1482	U
24	RA	1483	G
24	RA	1487	G
24	RA	1490	A
24	RA	1493	C
24	RA	1494	A
24	RA	1497	U
24	RA	1502	C
24	RA	1504	C
24	RA	1505	C
24	RA	1506	C
24	RA	1507	A
24	RA	1508	A
24	RA	1510	A
24	RA	1513	C
24	RA	1514	U
24	RA	1519	G
24	RA	1520	U
24	RA	1522	G
24	RA	1528	A

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Mol	Chain	Res	Type
24	RA	1535	U
24	RA	1536	A
24	RA	1537	C
24	RA	1538	G
24	RA	1543	A
24	RA	1545	A
24	RA	1547	C
24	RA	1558	A
24	RA	1559	G
24	RA	1566	A
24	RA	1569	A
24	RA	1578	U
24	RA	1580	A
24	RA	1581	G
24	RA	1583	A
24	RA	1586	A
24	RA	1598	C
24	RA	1608	A
24	RA	1609	A
24	RA	1616	A
24	RA	1617	C
24	RA	1640	C
24	RA	1646	C
24	RA	1648	C
24	RA	1654	A
24	RA	1665	A
24	RA	1667	G
24	RA	1668	A
24	RA	1674	G
24	RA	1675	C
24	RA	1678	G
24	RA	1725	G
24	RA	1728	G
24	RA	1729	A
24	RA	1733	G
24	RA	1743	G
24	RA	1750	G
24	RA	1756	G
24	RA	1762	A
24	RA	1763	G
24	RA	1764	G
24	RA	1773	A

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Mol	Chain	Res	Type
24	RA	1774	C
24	RA	1780	A
24	RA	1781	C
24	RA	1784	A
24	RA	1791	A
24	RA	1799	G
24	RA	1800	C
24	RA	1802	A
24	RA	1816	G
24	RA	1820	U
24	RA	1835	G
24	RA	1847	A
24	RA	1848	A
24	RA	1858	G
24	RA	1869	G
24	RA	1870	C
24	RA	1871	A
24	RA	1872	A
24	RA	1878	G
24	RA	1882	C
24	RA	1884	A
24	RA	1888	G
24	RA	1889	A
24	RA	1906	G
24	RA	1913	A
24	RA	1914	C
24	RA	1929	G
24	RA	1930	G
24	RA	1938	A
24	RA	1939	U
24	RA	1955	U
24	RA	1963	U
24	RA	1967	C
24	RA	1968	G
24	RA	1969	A
24	RA	1970	A
24	RA	1971	A
24	RA	1972	A
24	RA	1981	A
24	RA	1982	C
24	RA	1992	G
24	RA	1993	U

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Mol	Chain	Res	Type
24	RA	1996	C
24	RA	2004	G
24	RA	2023	G
24	RA	2031	A
24	RA	2032	G
24	RA	2033	A
24	RA	2043	C
24	RA	2052	G
24	RA	2055	C
24	RA	2056	G
24	RA	2059	A
24	RA	2060	A
24	RA	2061	G
24	RA	2062	A
24	RA	2063	C
24	RA	2069	G
24	RA	2093	G
24	RA	2099	U
24	RA	2101	G
24	RA	2107	C
24	RA	2111	C
24	RA	2113	U
24	RA	2114	A
24	RA	2115	G
24	RA	2116	G
24	RA	2117	A
24	RA	2118	U
24	RA	2126	A
24	RA	2127	G
24	RA	2128	C
24	RA	2131	G
24	RA	2132	U
24	RA	2133	G
24	RA	2135	A
24	RA	2136	C
24	RA	2147	G
24	RA	2148	G
24	RA	2161	C
24	RA	2166	G
24	RA	2168	G
24	RA	2170	A
24	RA	2173	A

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Mol	Chain	Res	Type
24	RA	2189	U
24	RA	2190	G
24	RA	2192	G
24	RA	2198	A
24	RA	2199	A
24	RA	2210	G
24	RA	2211	G
24	RA	2212	A
24	RA	2215	G
24	RA	2225	A
24	RA	2238	G
24	RA	2239	G
24	RA	2243	U
24	RA	2275	C
24	RA	2278	A
24	RA	2280	G
24	RA	2283	C
24	RA	2287	A
24	RA	2288	A
24	RA	2307	G
24	RA	2308	G
24	RA	2309	A
24	RA	2311	A
24	RA	2319	G
24	RA	2320	A
24	RA	2325	G
24	RA	2334	G
24	RA	2336	A
24	RA	2342	C
24	RA	2345	G
24	RA	2346	A
24	RA	2347	C
24	RA	2350	C
24	RA	2354	G
24	RA	2383	G
24	RA	2385	C
24	RA	2392	A
24	RA	2396	G
24	RA	2402	C
24	RA	2403	C
24	RA	2406	U
24	RA	2425	A

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Mol	Chain	Res	Type
24	RA	2427	C
24	RA	2428	G
24	RA	2429	G
24	RA	2430	A
24	RA	2435	A
24	RA	2439	A
24	RA	2440	C
24	RA	2441	C
24	RA	2447	G
24	RA	2448	A
24	RA	2469	A
24	RA	2470	G
24	RA	2474	C
24	RA	2475	C
24	RA	2478	A
24	RA	2480	C
24	RA	2482	G
24	RA	2494	G
24	RA	2498	C
24	RA	2502	G
24	RA	2505	G
24	RA	2518	A
24	RA	2519	U
24	RA	2529	G
24	RA	2542	A
24	RA	2543	G
24	RA	2554	U
24	RA	2566	A
24	RA	2567	G
24	RA	2569	G
24	RA	2572	A
24	RA	2578	G
24	RA	2582	G
24	RA	2585	U
24	RA	2602	A
24	RA	2609	U
24	RA	2611	U
24	RA	2612	C
24	RA	2623	G
24	RA	2629	A
24	RA	2636	U
24	RA	2641	G

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Mol	Chain	Res	Type
24	RA	2646	C
24	RA	2655	G
24	RA	2665	A
24	RA	2673	G
24	RA	2682	U
24	RA	2689	U
24	RA	2690	C
24	RA	2702	U
24	RA	2703	C
24	RA	2712(A)	A
24	RA	2713	A
24	RA	2714	G
24	RA	2726	U
24	RA	2733	A
24	RA	2739	U
24	RA	2744	G
24	RA	2748	A
24	RA	2751	G
24	RA	2752	C
24	RA	2757	A
24	RA	2761	G
24	RA	2764	A
24	RA	2765	A
24	RA	2766	G
24	RA	2778	A
24	RA	2779	U
24	RA	2789	C
24	RA	2790	A
24	RA	2791	C
24	RA	2797	U
24	RA	2798	C
24	RA	2807	G
24	RA	2818	G
24	RA	2820	A
24	RA	2821	A
24	RA	2833	G
24	RA	2834	G
24	RA	2849	U
24	RA	2867	G
24	RA	2872	G
24	RA	2880	C
24	RA	2891	G

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Mol	Chain	Res	Type
24	RA	2892	A
24	RA	2894	G
24	RA	2895	U
24	RA	2897	U
25	RB	8	U
25	RB	9	G
25	RB	13	A
25	RB	15	A
25	RB	19	G
25	RB	21	G
25	RB	24	G
25	RB	25	A
25	RB	41	U
25	RB	42	C
25	RB	44	G
25	RB	45	A
25	RB	52	A
25	RB	56	G
25	RB	67	G
25	RB	73	A
25	RB	108	C
25	RB	109	G
1	XA	6	G
1	XA	32	A
1	XA	35	G
1	XA	39	G
1	XA	47	C
1	XA	48	C
1	XA	50	A
1	XA	51	A
1	XA	61	G
1	XA	65	U
1	XA	66	G
1	XA	78	G
1	XA	79	G
1	XA	89	U
1	XA	92	G
1	XA	95	G
1	XA	101	A
1	XA	115	G
1	XA	116	A
1	XA	121	C

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Mol	Chain	Res	Type
1	XA	130	A
1	XA	144	G
1	XA	147	G
1	XA	160	A
1	XA	161	A
1	XA	163	C
1	XA	169	C
1	XA	172	A
1	XA	173	U
1	XA	174	C
1	XA	190	G
1	XA	195	A
1	XA	197	A
1	XA	201	C
1	XA	209	U
1	XA	210	U
1	XA	244	U
1	XA	245	C
1	XA	247	G
1	XA	251	G
1	XA	267	C
1	XA	270	A
1	XA	281	G
1	XA	289	G
1	XA	306	G
1	XA	314	C
1	XA	321	A
1	XA	328	C
1	XA	329	A
1	XA	332	G
1	XA	346	G
1	XA	347	G
1	XA	351	G
1	XA	352	C
1	XA	353	A
1	XA	354	G
1	XA	356	A
1	XA	367	U
1	XA	372	C
1	XA	373	A
1	XA	389	A
1	XA	397	A

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Mol	Chain	Res	Type
1	XA	398	C
1	XA	406	G
1	XA	411	A
1	XA	412	A
1	XA	413	G
1	XA	422	C
1	XA	423	G
1	XA	428	G
1	XA	429	U
1	XA	435	C
1	XA	452	A
1	XA	465	A
1	XA	466	C
1	XA	467	G
1	XA	482	A
1	XA	485	G
1	XA	486	U
1	XA	496	A
1	XA	497	U
1	XA	509	A
1	XA	510	A
1	XA	511	C
1	XA	518	C
1	XA	521	G
1	XA	527	G
1	XA	531	U
1	XA	532	A
1	XA	533	A
1	XA	547	A
1	XA	548	G
1	XA	559	A
1	XA	561	U
1	XA	562	C
1	XA	564	C
1	XA	568	G
1	XA	572	A
1	XA	573	A
1	XA	574	A
1	XA	576	G
1	XA	577	G
1	XA	618	C
1	XA	630	G

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Mol	Chain	Res	Type
1	XA	631	G
1	XA	632	A
1	XA	653	A
1	XA	665	A
1	XA	688	G
1	XA	702	A
1	XA	703	G
1	XA	704	A
1	XA	721	G
1	XA	723	U
1	XA	731	G
1	XA	749	C
1	XA	754	C
1	XA	755	G
1	XA	777	A
1	XA	792	A
1	XA	793	U
1	XA	794	A
1	XA	813	U
1	XA	816	A
1	XA	817	C
1	XA	818	G
1	XA	821	G
1	XA	828	A
1	XA	841	U
1	XA	842	C
1	XA	843	U
1	XA	848	C
1	XA	859	A
1	XA	871	U
1	XA	872	A
1	XA	902	G
1	XA	914	A
1	XA	926	G
1	XA	927	G
1	XA	934	C
1	XA	958	A
1	XA	960	U
1	XA	968	A
1	XA	969	A
1	XA	972	C
1	XA	974	A

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Mol	Chain	Res	Type
1	XA	975	A
1	XA	976	G
1	XA	977	A
1	XA	991	U
1	XA	992	U
1	XA	993	G
1	XA	1004	A
1	XA	1006	C
1	XA	1009	G
1	XA	1024	G
1	XA	1025	U
1	XA	1028	C
1	XA	1029	G
1	XA	1031	G
1	XA	1032	A
1	XA	1032(A)	G
1	XA	1039	C
1	XA	1040	U
1	XA	1042	G
1	XA	1053	G
1	XA	1054	C
1	XA	1066	C
1	XA	1081	G
1	XA	1094	G
1	XA	1095	U
1	XA	1101	A
1	XA	1104	G
1	XA	1108	G
1	XA	1124	G
1	XA	1125	U
1	XA	1126	U
1	XA	1127	G
1	XA	1129	C
1	XA	1130	A
1	XA	1131	G
1	XA	1136	U
1	XA	1137	C
1	XA	1138	G
1	XA	1139	G
1	XA	1146	A
1	XA	1157	A
1	XA	1158	C

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Mol	Chain	Res	Type
1	XA	1159	U
1	XA	1160	G
1	XA	1162	C
1	XA	1176	A
1	XA	1177	G
1	XA	1181	G
1	XA	1183	A
1	XA	1184	G
1	XA	1187	G
1	XA	1196	U
1	XA	1199	U
1	XA	1200	C
1	XA	1212	U
1	XA	1224	G
1	XA	1238	A
1	XA	1240	U
1	XA	1241	G
1	XA	1256	A
1	XA	1257	U
1	XA	1258	G
1	XA	1260	C
1	XA	1263	C
1	XA	1270	C
1	XA	1273	G
1	XA	1280	A
1	XA	1281	U
1	XA	1286	A
1	XA	1287	A
1	XA	1298	C
1	XA	1300	G
1	XA	1302	U
1	XA	1303	C
1	XA	1305	G
1	XA	1310	G
1	XA	1311	G
1	XA	1319	A
1	XA	1320	C
1	XA	1321	C
1	XA	1322	C
1	XA	1323	G
1	XA	1331	G
1	XA	1336	C

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Mol	Chain	Res	Type
1	XA	1337	G
1	XA	1346	A
1	XA	1347	G
1	XA	1362(A)	C
1	XA	1364	U
1	XA	1381	U
1	XA	1419	G
1	XA	1442	G
1	XA	1446	A
1	XA	1447	G
1	XA	1452	C
1	XA	1453	G
1	XA	1454	G
1	XA	1492	A
1	XA	1493	A
1	XA	1499	A
1	XA	1502	A
1	XA	1504	G
1	XA	1505	G
1	XA	1506	U
1	XA	1517	G
1	XA	1520	G
1	XA	1529	G
1	XA	1530	G
23	XX	7	G
23	XX	11	U
23	XX	12	A
23	XX	13	A
23	XX	14	A
24	YA	9	U
24	YA	15	G
24	YA	34	C
24	YA	35	G
24	YA	46	C
24	YA	55	G
24	YA	61	G
24	YA	63	U
24	YA	72	U
24	YA	74	A
24	YA	75	G
24	YA	101	G
24	YA	102	G

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Mol	Chain	Res	Type
24	YA	103	A
24	YA	118	A
24	YA	120	U
24	YA	125	G
24	YA	140	A
24	YA	161	U
24	YA	162	U
24	YA	181	A
24	YA	196	A
24	YA	199	A
24	YA	214	G
24	YA	216	A
24	YA	221	A
24	YA	222	A
24	YA	223	A
24	YA	226	G
24	YA	228	A
24	YA	229	A
24	YA	230	U
24	YA	232	G
24	YA	241	A
24	YA	242	G
24	YA	243	U
24	YA	248	G
24	YA	249	C
24	YA	252	G
24	YA	265	A
24	YA	266	G
24	YA	270(L)	U
24	YA	270(M)	U
24	YA	270(N)	G
24	YA	270(P)	C
24	YA	271(C)	U
24	YA	271(D)	G
24	YA	274	G
24	YA	275	G
24	YA	276	A
24	YA	278	A
24	YA	279	C
24	YA	299	A
24	YA	300	A
24	YA	311	A

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Mol	Chain	Res	Type
24	YA	323	G
24	YA	324	A
24	YA	329	G
24	YA	330	A
24	YA	332	A
24	YA	352	G
24	YA	363	G
24	YA	363(E)	U
24	YA	364	C
24	YA	371	A
24	YA	372	G
24	YA	386	G
24	YA	387	U
24	YA	395	U
24	YA	405	U
24	YA	406	G
24	YA	411	G
24	YA	412	A
24	YA	428	A
24	YA	443	A
24	YA	444	C
24	YA	448	U
24	YA	451	C
24	YA	457	A
24	YA	458	G
24	YA	467	G
24	YA	470	A
24	YA	481	G
24	YA	504	U
24	YA	505	A
24	YA	509	C
24	YA	511	U
24	YA	518	G
24	YA	527	C
24	YA	529	A
24	YA	530	G
24	YA	531	C
24	YA	532	A
24	YA	533	G
24	YA	537	C
24	YA	539	G
24	YA	540	G

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Mol	Chain	Res	Type
24	YA	546	C
24	YA	547	A
24	YA	563	G
24	YA	566	U
24	YA	568	U
24	YA	571	A
24	YA	573	G
24	YA	575	A
24	YA	600	G
24	YA	603	A
24	YA	607	U
24	YA	614	U
24	YA	617	G
24	YA	621	A
24	YA	627	A
24	YA	637	A
24	YA	638	G
24	YA	645	C
24	YA	646	A
24	YA	647	G
24	YA	651	G
24	YA	654	A
24	YA	654(A)	G
24	YA	668	G
24	YA	669	G
24	YA	686	G
24	YA	717	G
24	YA	722	A
24	YA	726	G
24	YA	730	C
24	YA	753	C
24	YA	764	A
24	YA	765	G
24	YA	782	A
24	YA	784	A
24	YA	785	G
24	YA	789	A
24	YA	790	C
24	YA	791	C
24	YA	792	G
24	YA	805	G
24	YA	812	C

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Mol	Chain	Res	Type
24	YA	819	A
24	YA	827	U
24	YA	828	U
24	YA	831	G
24	YA	847	U
24	YA	856	C
24	YA	857	C
24	YA	859	G
24	YA	860	U
24	YA	866	A
24	YA	880	G
24	YA	881	G
24	YA	882	G
24	YA	884	C
24	YA	885	C
24	YA	886	C
24	YA	888	C
24	YA	889	C
24	YA	896	A
24	YA	897	C
24	YA	900	A
24	YA	907	U
24	YA	910	A
24	YA	915	C
24	YA	917	A
24	YA	941	A
24	YA	945	A
24	YA	946	G
24	YA	953	A
24	YA	957	A
24	YA	959	A
24	YA	961	C
24	YA	973	A
24	YA	974	G
24	YA	974(A)	C
24	YA	975	G
24	YA	980	A
24	YA	983	A
24	YA	996	A
24	YA	1005	C
24	YA	1009	A
24	YA	1010	A

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Mol	Chain	Res	Type
24	YA	1011	G
24	YA	1012	U
24	YA	1013	C
24	YA	1022	G
24	YA	1023	U
24	YA	1026	U
24	YA	1027	A
24	YA	1033	U
24	YA	1046	A
24	YA	1047	G
24	YA	1050	A
24	YA	1054	A
24	YA	1059	G
24	YA	1060	U
24	YA	1061	U
24	YA	1062	G
24	YA	1065	U
24	YA	1067	A
24	YA	1068	G
24	YA	1070	A
24	YA	1071	G
24	YA	1073	A
24	YA	1077	A
24	YA	1078	U
24	YA	1082	U
24	YA	1083	U
24	YA	1084	A
24	YA	1085	A
24	YA	1086	A
24	YA	1088	A
24	YA	1089	G
24	YA	1093	G
24	YA	1096	A
24	YA	1097	U
24	YA	1103	A
24	YA	1104	C
24	YA	1110	G
24	YA	1111	A
24	YA	1122	G
24	YA	1126	A
24	YA	1130	U
24	YA	1135	C

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Mol	Chain	Res	Type
24	YA	1136	G
24	YA	1139	G
24	YA	1142	U
24	YA	1142(A)	A
24	YA	1151	G
24	YA	1169	G
24	YA	1173	G
24	YA	1174	A
24	YA	1175	U
24	YA	1176	G
24	YA	1179	C
24	YA	1180	C
24	YA	1204	A
24	YA	1205	U
24	YA	1211	U
24	YA	1220	A
24	YA	1221	C
24	YA	1236	G
24	YA	1238	G
24	YA	1244	G
24	YA	1248	G
24	YA	1250	G
24	YA	1253	A
24	YA	1256	G
24	YA	1265	A
24	YA	1271	G
24	YA	1272	A
24	YA	1273	U
24	YA	1300	U
24	YA	1301	A
24	YA	1325	G
24	YA	1329	U
24	YA	1349	A
24	YA	1352	U
24	YA	1355	G
24	YA	1365	A
24	YA	1368	G
24	YA	1370	C
24	YA	1378	A
24	YA	1379	A
24	YA	1384	A
24	YA	1385	G

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Mol	Chain	Res	Type
24	YA	1392	A
24	YA	1395	A
24	YA	1407	C
24	YA	1411	C
24	YA	1412	A
24	YA	1416	G
24	YA	1419	A
24	YA	1420	U
24	YA	1421	G
24	YA	1428	C
24	YA	1444(A)	A
24	YA	1445	C
24	YA	1449	A
24	YA	1449(A)	G
24	YA	1455	G
24	YA	1459	G
24	YA	1460	A
24	YA	1461	G
24	YA	1467	C
24	YA	1471	A
24	YA	1478	G
24	YA	1482	U
24	YA	1483	G
24	YA	1487	G
24	YA	1490	A
24	YA	1493	C
24	YA	1494	A
24	YA	1496	A
24	YA	1497	U
24	YA	1507	A
24	YA	1508	A
24	YA	1509	C
24	YA	1510	A
24	YA	1511	A
24	YA	1515	C
24	YA	1517	G
24	YA	1520	U
24	YA	1522	G
24	YA	1534	G
24	YA	1535	U
24	YA	1536	A
24	YA	1537	C

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Mol	Chain	Res	Type
24	YA	1540	G
24	YA	1543	A
24	YA	1544	C
24	YA	1545	A
24	YA	1546	C
24	YA	1558	A
24	YA	1559	G
24	YA	1566	A
24	YA	1569	A
24	YA	1578	U
24	YA	1580	A
24	YA	1581	G
24	YA	1585	C
24	YA	1586	A
24	YA	1591	G
24	YA	1598	C
24	YA	1608	A
24	YA	1609	A
24	YA	1610	A
24	YA	1616	A
24	YA	1617	C
24	YA	1618	A
24	YA	1640	C
24	YA	1646	C
24	YA	1647	G
24	YA	1648	C
24	YA	1654	A
24	YA	1669	A
24	YA	1670	C
24	YA	1674	G
24	YA	1675	C
24	YA	1693	U
24	YA	1695	G
24	YA	1725	G
24	YA	1728	G
24	YA	1729	A
24	YA	1730	U
24	YA	1731	G
24	YA	1732	A
24	YA	1743	G
24	YA	1750	G
24	YA	1753	G

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Mol	Chain	Res	Type
24	YA	1754	C
24	YA	1756	G
24	YA	1762	A
24	YA	1763	G
24	YA	1764	G
24	YA	1773	A
24	YA	1779	U
24	YA	1780	A
24	YA	1781	C
24	YA	1784	A
24	YA	1787	A
24	YA	1791	A
24	YA	1799	G
24	YA	1800	C
24	YA	1801	G
24	YA	1815	A
24	YA	1816	G
24	YA	1829	A
24	YA	1835	G
24	YA	1847	A
24	YA	1858	G
24	YA	1869	G
24	YA	1870	C
24	YA	1871	A
24	YA	1872	A
24	YA	1878	G
24	YA	1882	C
24	YA	1889	A
24	YA	1899	G
24	YA	1903	G
24	YA	1906	G
24	YA	1914	C
24	YA	1919	A
24	YA	1929	G
24	YA	1930	G
24	YA	1931	U
24	YA	1936	A
24	YA	1938	A
24	YA	1939	U
24	YA	1940	U
24	YA	1955	U
24	YA	1956	U

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Mol	Chain	Res	Type
24	YA	1960	A
24	YA	1963	U
24	YA	1967	C
24	YA	1968	G
24	YA	1969	A
24	YA	1970	A
24	YA	1971	A
24	YA	1972	A
24	YA	1982	C
24	YA	1992	G
24	YA	1993	U
24	YA	2020	A
24	YA	2021	C
24	YA	2023	G
24	YA	2031	A
24	YA	2033	A
24	YA	2043	C
24	YA	2052	G
24	YA	2055	C
24	YA	2056	G
24	YA	2059	A
24	YA	2060	A
24	YA	2061	G
24	YA	2062	A
24	YA	2069	G
24	YA	2093	G
24	YA	2100	G
24	YA	2111	C
24	YA	2112	G
24	YA	2114	A
24	YA	2115	G
24	YA	2116	G
24	YA	2118	U
24	YA	2119	A
24	YA	2120	G
24	YA	2126	A
24	YA	2127	G
24	YA	2131	G
24	YA	2132	U
24	YA	2133	G
24	YA	2136	C
24	YA	2146	C

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Mol	Chain	Res	Type
24	YA	2147	G
24	YA	2148	G
24	YA	2156	G
24	YA	2157	G
24	YA	2158	A
24	YA	2166	G
24	YA	2167	U
24	YA	2168	G
24	YA	2169	A
24	YA	2171	A
24	YA	2173	A
24	YA	2176	A
24	YA	2180	U
24	YA	2189	U
24	YA	2190	G
24	YA	2192	G
24	YA	2198	A
24	YA	2210	G
24	YA	2211	G
24	YA	2212	A
24	YA	2213	U
24	YA	2215	G
24	YA	2225	A
24	YA	2238	G
24	YA	2239	G
24	YA	2243	U
24	YA	2266	A
24	YA	2275	C
24	YA	2279	G
24	YA	2280	G
24	YA	2283	C
24	YA	2287	A
24	YA	2288	A
24	YA	2307	G
24	YA	2308	G
24	YA	2309	A
24	YA	2311	A
24	YA	2320	A
24	YA	2325	G
24	YA	2334	G
24	YA	2335	A
24	YA	2343	C

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Mol	Chain	Res	Type
24	YA	2345	G
24	YA	2346	A
24	YA	2347	C
24	YA	2350	C
24	YA	2354	G
24	YA	2372	G
24	YA	2383	G
24	YA	2385	C
24	YA	2392	A
24	YA	2396	G
24	YA	2402	C
24	YA	2403	C
24	YA	2406	U
24	YA	2410	G
24	YA	2423	U
24	YA	2425	A
24	YA	2427	C
24	YA	2428	G
24	YA	2429	G
24	YA	2430	A
24	YA	2435	A
24	YA	2439	A
24	YA	2441	C
24	YA	2447	G
24	YA	2448	A
24	YA	2450	A
24	YA	2469	A
24	YA	2475	C
24	YA	2478	A
24	YA	2494	G
24	YA	2498	C
24	YA	2502	G
24	YA	2504	U
24	YA	2505	G
24	YA	2518	A
24	YA	2542	A
24	YA	2543	G
24	YA	2554	U
24	YA	2566	A
24	YA	2567	G
24	YA	2572	A
24	YA	2573	C

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Mol	Chain	Res	Type
24	YA	2582	G
24	YA	2602	A
24	YA	2609	U
24	YA	2611	U
24	YA	2612	C
24	YA	2615	U
24	YA	2629	A
24	YA	2654	A
24	YA	2655	G
24	YA	2656	U
24	YA	2665	A
24	YA	2673	G
24	YA	2682	U
24	YA	2689	U
24	YA	2701	C
24	YA	2702	U
24	YA	2707	G
24	YA	2712	U
24	YA	2712(A)	A
24	YA	2713	A
24	YA	2714	G
24	YA	2724	C
24	YA	2726	U
24	YA	2733	A
24	YA	2739	U
24	YA	2744	G
24	YA	2748	A
24	YA	2749	A
24	YA	2751	G
24	YA	2757	A
24	YA	2762	G
24	YA	2764	A
24	YA	2765	A
24	YA	2766	G
24	YA	2777	G
24	YA	2778	A
24	YA	2779	U
24	YA	2790	A
24	YA	2791	C
24	YA	2797	U
24	YA	2807	G
24	YA	2808	U

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Mol	Chain	Res	Type
24	YA	2818	G
24	YA	2820	A
24	YA	2821	A
24	YA	2833	G
24	YA	2834	G
24	YA	2835	A
24	YA	2836	U
24	YA	2845	G
24	YA	2847	U
24	YA	2867	G
24	YA	2868	A
24	YA	2872	G
24	YA	2879	C
24	YA	2891	G
24	YA	2892	A
24	YA	2893	G
24	YA	2894	G
25	YB	8	U
25	YB	9	G
25	YB	13	A
25	YB	15	A
25	YB	16	G
25	YB	19	G
25	YB	25	A
25	YB	40	U
25	YB	41	U
25	YB	42	C
25	YB	44	G
25	YB	45	A
25	YB	52	A
25	YB	56	G
25	YB	67	G
25	YB	73	A
25	YB	81	G
25	YB	82	G
25	YB	89	G
25	YB	108	C
25	YB	109	G
22	XV	4	U
22	XV	5	G
22	XV	8	U
22	XV	18	U

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Mol	Chain	Res	Type
22	XV	19	G
22	XV	20	G
22	XV	22	A
22	XV	48	U
22	XV	49	C
22	XV	55	U
22	XV	58	G
22	XV	64	U
22	XV	65	C
22	XV	66	U
22	XV	68	U
22	XV	76	C
22	XV	77	A

All (157) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	QA	5	U
1	QA	64	G
1	QA	115	G
1	QA	119	A
1	QA	181	G
1	QA	243	A
1	QA	244	U
1	QA	250	A
1	QA	266	G
1	QA	328	C
1	QA	410	G
1	QA	412	A
1	QA	429	U
1	QA	481	G
1	QA	484	G
1	QA	485	G
1	QA	509	A
1	QA	687	A
1	QA	703	G
1	QA	753	A
1	QA	792	A
1	QA	812	C
1	QA	913	A
1	QA	960	U
1	QA	992	U

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Mol	Chain	Res	Type
1	QA	1064	G
1	QA	1065	U
1	QA	1200	C
1	QA	1201	A
1	QA	1285	A
1	QA	1297	C
1	QA	1336	C
1	QA	1346	A
1	QA	1347	G
1	QA	1446	A
1	QA	1498	U
1	QA	1528	U
22	QV	54	G
23	QX	15	A
23	QX	21	G
24	RA	74	A
24	RA	99	U
24	RA	221	A
24	RA	222	A
24	RA	229	A
24	RA	271(B)	G
24	RA	345	A
24	RA	372	G
24	RA	404	C
24	RA	503	A
24	RA	508	G
24	RA	512	G
24	RA	587	C
24	RA	637	A
24	RA	730	C
24	RA	752	A
24	RA	774	A
24	RA	846	C
24	RA	856	C
24	RA	1022	G
24	RA	1026	U
24	RA	1045	A
24	RA	1085	A
24	RA	1210	A
24	RA	1312	U
24	RA	1427	A
24	RA	1473	G

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Mol	Chain	Res	Type
24	RA	1558	A
24	RA	1653	G
24	RA	1819	A
24	RA	1980	G
24	RA	1992	G
24	RA	2060	A
24	RA	2126	A
24	RA	2439	A
24	RA	2566	A
24	RA	2582	G
24	RA	2610	C
24	RA	2689	U
24	RA	2756	U
24	RA	2832	U
25	RB	66	A
1	XA	60	A
1	XA	64	G
1	XA	78	G
1	XA	115	G
1	XA	243	A
1	XA	244	U
1	XA	250	A
1	XA	266	G
1	XA	328	C
1	XA	345	C
1	XA	410	G
1	XA	412	A
1	XA	481	G
1	XA	484	G
1	XA	485	G
1	XA	509	A
1	XA	687	A
1	XA	703	G
1	XA	753	A
1	XA	812	C
1	XA	913	A
1	XA	991	U
1	XA	992	U
1	XA	1027	C
1	XA	1285	A
1	XA	1297	C
1	XA	1310	G

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Mol	Chain	Res	Type
1	XA	1336	C
1	XA	1446	A
1	XA	1498	U
23	XX	12	A
24	YA	99	U
24	YA	195	A
24	YA	221	A
24	YA	229	A
24	YA	242	G
24	YA	271(B)	G
24	YA	278	A
24	YA	404	C
24	YA	503	A
24	YA	530	G
24	YA	637	A
24	YA	752	A
24	YA	846	C
24	YA	856	C
24	YA	859	G
24	YA	974(A)	C
24	YA	1012	U
24	YA	1022	G
24	YA	1026	U
24	YA	1085	A
24	YA	1109	C
24	YA	1178	C
24	YA	1204	A
24	YA	1210	A
24	YA	1427	A
24	YA	1460	A
24	YA	1508	A
24	YA	1558	A
24	YA	1653	G
24	YA	1694	C
24	YA	1786	A
24	YA	1799	G
24	YA	1930	G
24	YA	1955	U
24	YA	1992	G
24	YA	2566	A
24	YA	2610	C
24	YA	2681	C

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Mol	Chain	Res	Type
24	YA	2712	U
24	YA	2776	A
24	YA	2832	U
24	YA	2867	G
25	YB	66	A
22	XV	54	G

5.4 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1022 ligands modelled in this entry, 1020 are monoatomic - leaving 2 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	SF4	XD	301	4	0,12,12	-	-	-		
56	SF4	QD	301	4	0,12,12	-	-	-		

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	SF4	XD	301	4	-	-	0/6/5/5
56	SF4	QD	301	4	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	XD	301	SF4	3	0
56	QD	301	SF4	1	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	QA	1500/1521 (98%)	0.54	136 (9%) 15 16	137, 186, 345, 447	0
1	XA	1500/1521 (98%)	0.60	153 (10%) 12 14	117, 197, 361, 445	0
2	QB	235/256 (91%)	0.49	22 (9%) 14 16	188, 240, 277, 304	0
2	XB	236/256 (92%)	0.72	29 (12%) 8 11	172, 220, 264, 298	0
3	QC	205/239 (85%)	0.50	21 (10%) 12 14	194, 242, 289, 326	0
3	XC	205/239 (85%)	0.62	27 (13%) 7 10	193, 236, 276, 320	0
4	QD	208/209 (99%)	0.81	31 (14%) 5 9	153, 198, 243, 285	0
4	XD	208/209 (99%)	0.97	37 (17%) 4 6	154, 210, 252, 301	0
5	QE	151/162 (93%)	0.53	18 (11%) 9 12	148, 189, 227, 263	0
5	XE	151/162 (93%)	0.57	16 (10%) 11 13	138, 185, 222, 236	0
6	QF	101/101 (100%)	0.34	4 (3%) 42 32	154, 207, 240, 273	0
6	XF	101/101 (100%)	0.18	2 (1%) 65 47	135, 182, 221, 259	0
7	QG	155/156 (99%)	0.68	22 (14%) 6 10	221, 278, 318, 347	0
7	XG	155/156 (99%)	0.60	14 (9%) 15 17	224, 287, 321, 327	0
8	QH	137/138 (99%)	0.98	25 (18%) 3 6	140, 202, 237, 277	0
8	XH	137/138 (99%)	0.84	21 (15%) 5 9	138, 188, 215, 237	0
9	QI	125/128 (97%)	0.87	13 (10%) 11 14	195, 286, 320, 335	0
9	XI	126/128 (98%)	1.09	22 (17%) 4 7	178, 278, 313, 331	0
10	QJ	99/105 (94%)	1.15	19 (19%) 3 6	245, 289, 331, 345	0
10	XJ	96/105 (91%)	1.20	22 (22%) 2 4	232, 305, 333, 366	0
11	QK	119/129 (92%)	0.33	9 (7%) 20 19	154, 194, 237, 273	0
11	XK	116/129 (89%)	0.32	11 (9%) 14 16	136, 181, 225, 263	0
12	QL	125/132 (94%)	1.22	29 (23%) 2 4	127, 164, 202, 247	0
12	XL	122/132 (92%)	1.26	29 (23%) 2 4	128, 163, 193, 219	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	QM	120/126 (95%)	0.88	19 (15%) 5 8	201, 278, 316, 331	0
13	XM	119/126 (94%)	0.92	21 (17%) 4 7	240, 283, 320, 334	0
14	QN	60/61 (98%)	1.42	18 (30%) 1 3	220, 278, 326, 416	0
14	XN	60/61 (98%)	1.42	15 (25%) 2 4	209, 257, 285, 312	0
15	QO	88/89 (98%)	0.44	3 (3%) 48 35	138, 176, 219, 244	0
15	XO	87/89 (97%)	0.57	10 (11%) 9 12	121, 153, 189, 199	0
16	QP	84/88 (95%)	1.06	15 (17%) 3 6	145, 181, 219, 253	0
16	XP	84/88 (95%)	0.66	6 (7%) 22 20	158, 210, 249, 274	0
17	QQ	100/105 (95%)	0.99	19 (19%) 3 6	150, 182, 211, 227	0
17	XQ	100/105 (95%)	0.88	18 (18%) 3 6	131, 172, 202, 217	0
18	QR	70/88 (79%)	0.26	1 (1%) 73 54	153, 194, 228, 256	0
18	XR	70/88 (79%)	0.17	2 (2%) 53 39	127, 174, 210, 219	0
19	QS	83/93 (89%)	0.75	11 (13%) 7 10	243, 277, 311, 325	0
19	XS	84/93 (90%)	1.69	27 (32%) 1 2	254, 296, 317, 341	0
20	QT	99/106 (93%)	1.05	20 (20%) 3 5	126, 172, 215, 233	0
20	XT	99/106 (93%)	1.30	24 (24%) 2 4	127, 187, 233, 247	0
21	QU	25/27 (92%)	2.64	16 (64%) 0 1	199, 233, 270, 291	0
21	XU	25/27 (92%)	2.43	13 (52%) 0 1	209, 260, 273, 282	0
22	QV	77/77 (100%)	0.68	9 (11%) 9 12	262, 300, 338, 374	0
22	XV	77/77 (100%)	1.49	21 (27%) 1 3	409, 455, 519, 559	0
23	QX	19/19 (100%)	3.49	15 (78%) 0 0	235, 378, 498, 513	0
23	XX	19/19 (100%)	3.93	16 (84%) 0 0	230, 374, 393, 395	0
24	RA	2882/2915 (98%)	0.46	218 (7%) 20 19	89, 142, 314, 708	0
24	YA	2883/2915 (98%)	0.36	161 (5%) 30 25	74, 113, 236, 618	0
25	RB	120/122 (98%)	0.59	8 (6%) 24 21	154, 216, 251, 291	0
25	YB	120/122 (98%)	0.03	3 (2%) 58 43	104, 144, 169, 199	0
26	RD	272/276 (98%)	1.01	52 (19%) 3 6	98, 133, 165, 247	0
26	YD	272/276 (98%)	1.07	52 (19%) 3 6	91, 116, 153, 250	0
27	RE	205/206 (99%)	0.91	31 (15%) 5 9	108, 140, 187, 247	0
27	YE	205/206 (99%)	0.89	34 (16%) 4 7	84, 121, 175, 255	0
28	RF	202/210 (96%)	0.73	22 (10%) 10 13	102, 153, 211, 247	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	YF	202/210 (96%)	0.79	27 (13%) 7 10	81, 116, 177, 234	0
29	RG	181/182 (99%)	0.41	18 (9%) 13 15	196, 238, 298, 344	0
29	YG	181/182 (99%)	0.31	8 (4%) 39 30	119, 184, 248, 289	0
30	RH	174/180 (96%)	0.74	20 (11%) 9 12	135, 199, 259, 279	0
30	YH	174/180 (96%)	0.70	16 (9%) 14 16	96, 134, 170, 242	0
31	RI	146/148 (98%)	0.56	16 (10%) 10 13	134, 185, 237, 288	0
31	YI	146/148 (98%)	0.34	8 (5%) 30 25	118, 166, 209, 237	0
32	RN	138/140 (98%)	0.70	10 (7%) 21 20	116, 150, 203, 229	0
32	YN	138/140 (98%)	0.78	14 (10%) 12 14	75, 114, 168, 237	0
33	RO	122/122 (100%)	0.97	22 (18%) 3 6	94, 131, 169, 188	0
33	YO	122/122 (100%)	0.52	6 (4%) 35 28	87, 120, 153, 174	0
34	RP	150/150 (100%)	1.12	36 (24%) 2 4	121, 167, 211, 286	0
34	YP	147/150 (98%)	1.04	31 (21%) 2 4	96, 127, 174, 210	0
35	RQ	141/141 (100%)	0.83	16 (11%) 10 13	130, 169, 211, 249	0
35	YQ	141/141 (100%)	0.96	21 (14%) 5 9	85, 123, 166, 223	0
36	RR	117/118 (99%)	1.03	17 (14%) 6 9	98, 129, 161, 235	0
36	YR	117/118 (99%)	1.09	20 (17%) 4 7	87, 118, 148, 228	0
37	RS	111/112 (99%)	0.82	18 (16%) 4 8	150, 193, 242, 278	0
37	YS	111/112 (99%)	0.56	12 (10%) 11 13	112, 140, 190, 256	0
38	RT	137/146 (93%)	0.70	13 (9%) 14 16	99, 149, 254, 273	0
38	YT	137/146 (93%)	0.87	20 (14%) 6 9	102, 138, 218, 266	0
39	RU	117/118 (99%)	0.97	18 (15%) 5 9	116, 168, 234, 258	0
39	YU	117/118 (99%)	0.79	12 (10%) 12 14	79, 111, 154, 215	0
40	RV	101/101 (100%)	0.46	10 (9%) 13 15	98, 168, 212, 271	0
40	YV	101/101 (100%)	0.58	13 (12%) 7 11	87, 124, 184, 238	0
41	RW	113/113 (100%)	0.86	17 (15%) 5 9	85, 118, 180, 289	0
41	YW	113/113 (100%)	0.62	7 (6%) 26 23	77, 104, 152, 234	0
42	RX	92/96 (95%)	1.21	17 (18%) 3 6	100, 135, 177, 192	0
42	YX	92/96 (95%)	0.99	17 (18%) 3 6	82, 113, 152, 191	0
43	RY	107/110 (97%)	0.84	20 (18%) 3 6	119, 171, 209, 244	0
43	YY	107/110 (97%)	0.87	16 (14%) 5 9	101, 137, 174, 240	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	RZ	183/206 (88%)	0.42	13 (7%) 22 20	161, 212, 259, 303	0
44	YZ	183/206 (88%)	0.52	16 (8%) 16 17	108, 159, 204, 245	0
45	R0	81/85 (95%)	1.04	15 (18%) 3 6	129, 163, 226, 282	0
45	Y0	74/85 (87%)	0.89	14 (18%) 3 6	99, 127, 151, 160	0
46	R1	97/98 (98%)	1.42	22 (22%) 2 4	110, 146, 196, 237	0
46	Y1	93/98 (94%)	1.34	24 (25%) 1 4	92, 125, 173, 197	0
47	R2	69/72 (95%)	0.77	9 (13%) 7 11	110, 165, 216, 285	0
47	Y2	69/72 (95%)	1.06	9 (13%) 7 11	86, 117, 158, 186	0
48	R3	59/60 (98%)	0.82	6 (10%) 12 14	115, 165, 223, 268	0
48	Y3	59/60 (98%)	0.96	8 (13%) 7 10	81, 117, 176, 229	0
49	R4	69/71 (97%)	0.29	0 100 100	206, 267, 328, 379	0
49	Y4	69/71 (97%)	0.17	4 (5%) 29 25	166, 262, 333, 360	0
50	R5	59/60 (98%)	0.43	4 (6%) 23 21	100, 131, 216, 233	0
50	Y5	59/60 (98%)	0.42	2 (3%) 48 35	84, 110, 198, 255	0
51	R6	53/54 (98%)	0.25	1 (1%) 66 48	142, 172, 214, 247	0
51	Y6	53/54 (98%)	0.54	5 (9%) 14 16	111, 144, 183, 190	0
52	R7	47/49 (95%)	0.96	9 (19%) 3 6	98, 122, 145, 169	0
52	Y7	48/49 (97%)	0.83	6 (12%) 8 11	76, 100, 150, 179	0
53	R8	64/65 (98%)	1.49	17 (26%) 1 4	115, 151, 201, 266	0
53	Y8	64/65 (98%)	1.48	19 (29%) 1 3	90, 117, 147, 238	0
54	R9	37/37 (100%)	1.62	11 (29%) 1 3	161, 200, 292, 294	0
54	Y9	37/37 (100%)	1.54	13 (35%) 1 2	132, 153, 189, 210	0
All	All	20842/21436 (97%)	0.66	2375 (11%) 10 13	74, 162, 306, 708	0

All (2375) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
10	QJ	58	ASP	12.8
26	YD	34	VAL	12.0
11	QK	127	LYS	10.4
24	RA	1093	G	10.1
24	RA	1092	C	9.8
9	XI	116	LYS	9.7
45	R0	3	HIS	9.7

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Mol	Chain	Res	Type	RSRZ
10	XJ	58	ASP	9.5
11	QK	128	ALA	9.5
3	QC	158	GLY	9.4
3	QC	159	GLY	9.4
27	RE	79	ARG	9.0
14	QN	13	THR	9.0
47	Y2	12	GLU	8.8
14	QN	11	LYS	8.7
21	XU	14	TRP	8.7
9	XI	106	ALA	8.5
20	XT	18	GLN	8.4
1	XA	1349	A	8.4
10	QJ	64	GLU	8.3
23	QX	22	G	8.2
30	RH	152	ARG	8.1
12	XL	27	LEU	8.1
24	RA	1100	C	8.0
2	XB	165	VAL	7.8
24	RA	1094	U	7.8
22	XV	77	A	7.7
12	XL	28	LYS	7.7
19	XS	9	VAL	7.6
10	XJ	47	PHE	7.6
24	RA	1099	G	7.5
23	XX	11	U	7.4
33	RO	1	MET	7.4
3	QC	160	ALA	7.3
26	RD	155	LEU	7.2
24	YA	2116	G	7.2
26	RD	147	LEU	7.1
42	RX	34	ALA	7.0
13	XM	97	PRO	7.0
13	QM	75	ALA	7.0
20	QT	8	ARG	7.0
30	RH	169	VAL	7.0
21	XU	6	ARG	7.0
2	XB	71	VAL	6.9
52	Y7	48	LYS	6.9
10	QJ	48	THR	6.9
23	XX	10	G	6.9
54	R9	12	ASP	6.8
21	QU	2	GLY	6.8

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Mol	Chain	Res	Type	RSRZ
36	YR	48	VAL	6.8
21	QU	16	GLY	6.8
26	YD	33	LEU	6.7
22	QV	77	A	6.7
27	RE	121	ASN	6.7
17	XQ	35	VAL	6.6
36	RR	2	ARG	6.6
45	R0	5	LYS	6.6
40	RV	74	LYS	6.6
3	XC	164	ARG	6.5
22	XV	75	C	6.5
46	R1	3	LYS	6.5
38	YT	46	GLU	6.4
24	RA	1536	A	6.4
4	XD	4	TYR	6.4
27	YE	121	ASN	6.4
19	XS	57	HIS	6.3
1	XA	1352	C	6.3
1	QA	104	G	6.3
40	RV	72	VAL	6.3
27	YE	159	HIS	6.2
1	XA	769	G	6.2
54	R9	28	GLU	6.2
35	YQ	90	VAL	6.2
5	XE	89	ILE	6.1
8	QH	112	LEU	6.1
38	RT	94	ALA	6.1
9	XI	117	HIS	6.1
24	YA	2699	C	6.1
17	XQ	101	ARG	6.0
24	YA	2188	C	6.0
1	XA	1286	A	6.0
9	XI	123	PRO	6.0
24	RA	2798	C	6.0
10	XJ	64	GLU	6.0
12	XL	29	GLY	6.0
33	RO	41	ALA	6.0
5	QE	110	LEU	6.0
10	XJ	65	LEU	6.0
14	XN	11	LYS	5.9
11	QK	129	SER	5.9
24	RA	2104	G	5.9

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Mol	Chain	Res	Type	RSRZ
19	XS	68	GLY	5.9
33	RO	2	ILE	5.9
10	QJ	62	HIS	5.9
23	XX	9	G	5.9
45	Y0	10	THR	5.8
9	XI	115	GLY	5.8
1	QA	1286	A	5.8
37	RS	32	LEU	5.7
20	XT	15	ARG	5.7
1	XA	1348	U	5.7
3	XC	153	VAL	5.7
4	XD	130	GLY	5.7
40	RV	81	TYR	5.7
23	QX	4	G	5.7
24	YA	2162	G	5.7
12	QL	19	ARG	5.7
6	QF	6	VAL	5.7
39	YU	91	ASP	5.7
22	XV	76	C	5.7
24	RA	1026	U	5.7
16	XP	28	ARG	5.7
32	YN	115	ARG	5.7
1	XA	134	A	5.6
24	RA	1098	A	5.5
24	RA	1133	U	5.5
43	YY	1	MET	5.5
40	RV	73	SER	5.5
24	RA	34	C	5.5
1	XA	308	C	5.5
8	XH	93	VAL	5.5
7	QG	13	GLN	5.5
42	RX	68	ARG	5.5
4	XD	67	ILE	5.5
1	XA	1531	A	5.5
7	XG	13	GLN	5.4
1	XA	1353	G	5.4
3	XC	155	GLY	5.4
24	YA	1096	A	5.4
5	XE	129	ILE	5.4
53	R8	53	PRO	5.4
20	XT	8	ARG	5.4
24	YA	2189	U	5.4

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Mol	Chain	Res	Type	RSRZ
29	YG	35	GLU	5.4
21	XU	26	LYS	5.4
26	RD	33	LEU	5.4
10	QJ	47	PHE	5.4
42	YX	68	ARG	5.4
12	QL	128	ALA	5.4
14	QN	20	ALA	5.4
24	YA	1629	U	5.3
23	QX	13	G	5.3
24	RA	790	C	5.3
43	RY	1	MET	5.3
12	XL	13	LYS	5.3
16	XP	29	ASP	5.3
53	Y8	65	GLU	5.3
24	YA	2697	G	5.3
34	RP	71	VAL	5.3
26	RD	273	ARG	5.3
13	QM	78	ILE	5.3
23	XX	19	G	5.2
10	XJ	63	PHE	5.2
29	YG	34	LEU	5.2
12	XL	126	LYS	5.2
45	R0	4	LYS	5.2
1	QA	108	G	5.2
2	XB	188	ALA	5.2
23	XX	7	G	5.2
24	RA	2141	G	5.2
17	XQ	34	LYS	5.2
10	XJ	46	ARG	5.1
3	XC	168	ALA	5.1
12	QL	129	ALA	5.1
38	RT	25	GLY	5.1
42	RX	33	LYS	5.1
8	XH	102	ARG	5.1
14	XN	13	THR	5.0
28	RF	71	GLY	5.0
4	XD	49	ARG	5.0
16	QP	8	ARG	5.0
1	XA	1397	C	5.0
54	Y9	21	GLY	5.0
44	RZ	113	ALA	5.0
6	QF	90	VAL	5.0

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Mol	Chain	Res	Type	RSRZ
12	QL	18	VAL	5.0
14	XN	17	LYS	5.0
1	XA	5	U	5.0
29	RG	157	ILE	5.0
9	XI	108	VAL	5.0
26	YD	133	LEU	5.0
41	YW	46	PHE	5.0
15	QO	55	GLY	4.9
4	XD	11	LEU	4.9
37	RS	2	ALA	4.9
2	QB	164	VAL	4.9
1	QA	877	C	4.9
13	XM	90	LEU	4.9
53	Y8	63	PRO	4.9
47	Y2	11	GLU	4.9
13	QM	121	LYS	4.9
8	QH	4	ASP	4.8
21	QU	26	LYS	4.8
26	RD	237	GLU	4.8
26	RD	267	SER	4.8
52	R7	47	ARG	4.8
37	YS	3	ARG	4.8
21	XU	16	GLY	4.8
53	Y8	52	LYS	4.8
14	QN	35	ARG	4.8
17	QQ	101	ARG	4.8
19	XS	13	ASP	4.8
4	XD	47	ARG	4.8
10	QJ	46	ARG	4.8
45	R0	45	PHE	4.8
34	RP	24	GLY	4.8
1	QA	1531	A	4.8
1	XA	1243	C	4.8
23	QX	14	U	4.8
46	R1	46	LEU	4.8
53	R8	55	ALA	4.7
1	QA	1397	C	4.7
17	XQ	33	GLY	4.7
26	RD	34	VAL	4.7
43	YY	85	VAL	4.7
24	RA	614	U	4.7
24	RA	1778	U	4.7

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Mol	Chain	Res	Type	RSRZ
30	YH	155	SER	4.7
24	RA	1058	G	4.7
11	XK	126	ARG	4.7
23	QX	15	A	4.7
23	XX	5	A	4.7
12	XL	99	HIS	4.7
2	XB	164	VAL	4.7
12	QL	32	PHE	4.7
9	QI	117	HIS	4.7
19	XS	56	GLN	4.7
4	XD	69	GLY	4.7
3	XC	154	SER	4.7
24	RA	2142	C	4.7
19	QS	9	VAL	4.6
38	YT	47	GLY	4.6
9	XI	118	LYS	4.6
24	RA	1785	A	4.6
1	XA	135	C	4.6
30	YH	64	LEU	4.6
26	YD	185	VAL	4.6
37	YS	92	TYR	4.6
13	QM	94	ARG	4.6
24	YA	2141	G	4.6
34	YP	78	PRO	4.6
4	XD	48	ALA	4.5
14	XN	61	TRP	4.5
1	QA	1351	U	4.5
1	XA	1196	U	4.5
23	XX	6	G	4.5
24	RA	859	G	4.5
34	RP	74	GLU	4.5
46	Y1	11	ARG	4.5
54	Y9	20	HIS	4.5
7	QG	81	GLY	4.5
28	RF	207	GLY	4.5
29	RG	133	LEU	4.5
38	RT	99	LEU	4.5
44	RZ	183	LEU	4.5
39	YU	90	VAL	4.5
3	XC	156	ARG	4.5
1	XA	1351	U	4.5
17	XQ	24	GLU	4.5

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Mol	Chain	Res	Type	RSRZ
24	YA	2602	A	4.5
24	RA	2138	C	4.5
46	R1	61	ARG	4.5
27	RE	193	GLY	4.5
13	XM	96	LEU	4.5
5	XE	21	ALA	4.5
12	QL	99	HIS	4.5
1	XA	968	A	4.5
38	RT	1	MET	4.4
46	Y1	42	GLN	4.4
30	YH	67	LEU	4.4
31	RI	3	VAL	4.4
4	QD	86	LYS	4.4
9	XI	100	GLY	4.4
23	XX	8	A	4.4
24	RA	2114	A	4.4
4	QD	67	ILE	4.4
45	Y0	41	ARG	4.4
26	RD	38	LYS	4.4
2	XB	187	LEU	4.4
31	YI	35	LEU	4.4
14	QN	55	GLY	4.4
39	RU	7	GLY	4.4
9	XI	110	GLU	4.4
14	XN	59	ALA	4.4
42	RX	65	ARG	4.4
5	XE	91	LEU	4.4
7	QG	14	PRO	4.4
32	RN	44	PRO	4.4
31	YI	117	GLU	4.4
26	YD	145	VAL	4.4
34	RP	53	GLY	4.4
1	QA	378	G	4.4
42	RX	38	GLU	4.4
53	R8	65	GLU	4.4
24	RA	1847	A	4.4
38	YT	45	PHE	4.4
20	QT	73	HIS	4.4
3	QC	157	ILE	4.4
45	Y0	45	PHE	4.3
3	QC	155	GLY	4.3
1	XA	1350	A	4.3

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Mol	Chain	Res	Type	RSRZ
22	XV	54	G	4.3
8	XH	110	ALA	4.3
14	XN	14	PRO	4.3
21	QU	10	ARG	4.3
1	QA	82	U	4.3
53	R8	54	GLU	4.3
35	YQ	104	PHE	4.3
23	QX	7	A	4.3
24	RA	1059	G	4.3
20	QT	56	MET	4.3
20	XT	73	HIS	4.3
27	RE	150	VAL	4.3
7	QG	8	GLU	4.3
37	YS	8	GLU	4.3
47	Y2	13	ALA	4.3
12	QL	17	LYS	4.3
38	YT	65	LYS	4.3
1	QA	1065	U	4.3
7	QG	34	GLY	4.3
38	YT	51	ARG	4.3
2	QB	163	PHE	4.3
32	RN	68	GLU	4.3
34	RP	23	PRO	4.3
42	RX	31	HIS	4.3
27	RE	205	ALA	4.2
26	RD	226	MET	4.2
24	RA	1537	C	4.2
30	YH	125	VAL	4.2
33	YO	1	MET	4.2
24	RA	984	A	4.2
8	QH	13	ILE	4.2
13	XM	113	PRO	4.2
24	RA	2802	G	4.2
10	QJ	49	VAL	4.2
24	RA	2117	A	4.2
30	RH	107	VAL	4.2
24	RA	776	G	4.2
24	RA	1068	G	4.2
1	XA	871	U	4.2
1	XA	1195	C	4.2
24	YA	1537	C	4.2
8	XH	91	ARG	4.2

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Mol	Chain	Res	Type	RSRZ
27	YE	79	ARG	4.2
3	XC	162	GLN	4.2
24	RA	2801	A	4.2
3	XC	10	PHE	4.2
15	XO	60	VAL	4.1
7	QG	33	ASP	4.1
39	RU	16	LYS	4.1
8	XH	133	LEU	4.1
7	QG	27	ILE	4.1
19	QS	84	GLY	4.1
35	RQ	90	VAL	4.1
13	XM	110	ARG	4.1
27	RE	127	ASP	4.1
30	YH	152	ARG	4.1
1	QA	1092	A	4.1
12	QL	13	LYS	4.1
19	XS	5	LEU	4.1
28	YF	207	GLY	4.1
1	XA	1262	C	4.1
24	YA	2142	C	4.1
24	RA	11	G	4.1
7	QG	11	GLN	4.1
5	XE	88	LYS	4.1
34	RP	61	ARG	4.1
20	XT	11	SER	4.0
24	YA	271(A)	C	4.0
24	RA	101	G	4.0
24	YA	2165	G	4.0
2	XB	167	PRO	4.0
19	QS	76	PRO	4.0
24	YA	2585	U	4.0
9	QI	30	GLY	4.0
34	RP	109	GLY	4.0
24	RA	1077	A	4.0
37	RS	7	TYR	4.0
24	YA	2694	G	4.0
3	XC	160	ALA	4.0
29	RG	159	VAL	4.0
17	XQ	32	TYR	4.0
42	RX	67	GLY	4.0
48	Y3	20	LYS	4.0
24	RA	783	A	4.0

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Mol	Chain	Res	Type	RSRZ
31	RI	38	LEU	4.0
26	RD	52	ARG	4.0
1	XA	963	G	4.0
1	XA	1310	G	4.0
2	XB	93	VAL	4.0
23	QX	5	G	4.0
23	QX	12	G	4.0
24	YA	1630	G	4.0
35	RQ	104	PHE	4.0
27	RE	152	LYS	4.0
34	RP	27	HIS	4.0
5	XE	76	ILE	3.9
23	XX	12	A	3.9
26	RD	32	SER	3.9
37	YS	93	LYS	3.9
54	R9	15	LYS	3.9
19	XS	71	LEU	3.9
21	QU	4	GLY	3.9
26	RD	156	ALA	3.9
20	QT	75	ASN	3.9
1	QA	1530	G	3.9
1	XA	306	G	3.9
1	XA	723	U	3.9
12	XL	19	ARG	3.9
24	RA	2506	U	3.9
41	YW	96	ILE	3.9
43	YY	68	HIS	3.9
1	QA	1374	A	3.9
24	YA	970	C	3.9
24	YA	2143	C	3.9
34	YP	76	LYS	3.9
31	YI	1	MET	3.9
4	QD	64	LEU	3.9
3	XC	201	TYR	3.9
37	RS	22	GLY	3.9
46	Y1	6	GLU	3.9
1	XA	1207	G	3.9
21	QU	6	ARG	3.9
24	RA	2149	G	3.9
27	RE	117	MET	3.9
52	R7	1	MET	3.9
42	YX	94	GLY	3.9

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Mol	Chain	Res	Type	RSRZ
1	XA	110	C	3.9
11	QK	11	LYS	3.9
34	YP	65	ARG	3.9
26	YD	147	LEU	3.9
32	RN	46	VAL	3.9
24	RA	858	U	3.9
17	QQ	39	SER	3.9
42	RX	3	THR	3.9
13	XM	98	VAL	3.9
29	RG	28	VAL	3.9
1	QA	1289	A	3.9
23	XX	13	A	3.9
24	YA	1829	A	3.9
24	RA	2803	C	3.9
54	R9	20	HIS	3.9
12	QL	28	LYS	3.9
1	XA	818	G	3.8
23	XX	1	G	3.8
4	QD	11	LEU	3.8
12	QL	27	LEU	3.8
14	QN	44	LEU	3.8
12	QL	96	VAL	3.8
21	QU	14	TRP	3.8
46	Y1	3	LYS	3.8
28	YF	131	GLY	3.8
46	R1	26	ARG	3.8
44	RZ	98	MET	3.8
1	XA	380	G	3.8
9	XI	105	ASP	3.8
14	XN	26	ARG	3.8
21	QU	5	ASP	3.8
24	RA	2799	A	3.8
26	RD	177	LEU	3.8
13	QM	85	GLY	3.8
1	QA	972	C	3.8
24	RA	2140	C	3.8
24	RA	2188	C	3.8
24	YA	2804	C	3.8
2	QB	71	VAL	3.8
46	Y1	23	LYS	3.8
4	XD	70	ILE	3.8
10	XJ	45	ARG	3.8

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Mol	Chain	Res	Type	RSRZ
3	XC	159	GLY	3.8
26	YD	42	GLY	3.8
27	YE	204	ALA	3.8
38	RT	4	GLY	3.8
1	XA	1055	A	3.8
23	XX	4	A	3.8
24	RA	1787	A	3.8
26	RD	173	VAL	3.8
26	YD	155	LEU	3.8
41	RW	86	LEU	3.8
1	XA	1366	C	3.8
3	XC	158	GLY	3.8
34	RP	43	GLY	3.8
20	QT	74	LYS	3.8
26	RD	154	LYS	3.8
16	QP	28	ARG	3.7
1	XA	1332	A	3.7
24	RA	2309	A	3.7
17	XQ	36	ILE	3.7
20	XT	10	LEU	3.7
32	YN	46	VAL	3.7
24	YA	2179	C	3.7
34	RP	18	ARG	3.7
52	R7	18	PHE	3.7
35	YQ	140	ALA	3.7
42	YX	36	LYS	3.7
53	Y8	50	LEU	3.7
4	XD	5	ILE	3.7
26	RD	145	VAL	3.7
26	YD	173	VAL	3.7
42	YX	54	VAL	3.7
46	Y1	27	GLU	3.7
3	QC	154	SER	3.7
3	QC	156	ARG	3.7
14	XN	20	ALA	3.7
19	QS	7	LYS	3.7
24	RA	1033	U	3.7
24	RA	2144	U	3.7
44	YZ	113	ALA	3.7
53	Y8	51	ALA	3.7
1	QA	1115	C	3.7
24	YA	1830	C	3.7

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Mol	Chain	Res	Type	RSRZ
48	Y3	2	PRO	3.7
49	Y4	66	SER	3.7
21	XU	25	LYS	3.7
43	YY	63	LYS	3.7
33	RO	34	THR	3.7
3	XC	157	ILE	3.7
5	XE	118	ILE	3.7
12	XL	7	ILE	3.7
34	RP	50	ARG	3.7
1	XA	1364	U	3.7
16	QP	29	ASP	3.7
24	YA	614	U	3.7
21	QU	3	LYS	3.7
24	YA	2695	C	3.7
28	RF	26	ALA	3.7
2	XB	72	GLY	3.7
34	YP	54	GLY	3.7
10	QJ	45	ARG	3.7
34	RP	65	ARG	3.7
34	YP	56	SER	3.7
17	QQ	24	GLU	3.7
20	XT	14	LYS	3.7
26	YD	38	LYS	3.7
39	RU	37	GLU	3.7
1	QA	1288	A	3.6
2	XB	222	ILE	3.6
5	QE	109	ILE	3.6
2	XB	81	VAL	3.6
28	YF	74	ARG	3.6
38	YT	106	SER	3.6
53	R8	48	PHE	3.6
30	RH	168	PRO	3.6
24	RA	1076	C	3.6
1	QA	1517	G	3.6
1	QA	1523	G	3.6
23	QX	10	G	3.6
24	YA	2166	G	3.6
31	RI	39	ALA	3.6
19	QS	68	GLY	3.6
34	RP	44	GLY	3.6
54	R9	9	ARG	3.6
26	RD	5	LYS	3.6

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Mol	Chain	Res	Type	RSRZ
4	QD	160	GLN	3.6
8	XH	112	LEU	3.6
1	QA	5	U	3.6
24	YA	271(C)	U	3.6
46	R1	41	ARG	3.6
22	QV	72	C	3.6
24	YA	2161	C	3.6
27	RE	104	VAL	3.6
9	QI	123	PRO	3.6
17	XQ	28	PRO	3.6
24	RA	615	G	3.6
24	RA	2155	G	3.6
12	XL	30	ALA	3.6
13	XM	107	ALA	3.6
1	QA	1349	A	3.6
3	QC	13	GLY	3.6
34	YP	44	GLY	3.6
4	XD	198	VAL	3.6
29	YG	82	LEU	3.6
3	QC	162	GLN	3.6
3	XC	169	ALA	3.6
24	RA	2103	C	3.6
24	RA	2691	C	3.6
12	QL	86	ARG	3.6
37	RS	5	THR	3.6
46	R1	98	LEU	3.6
1	QA	878	G	3.6
24	RA	1091	G	3.6
1	XA	958	A	3.6
23	QX	18	A	3.6
40	YV	81	TYR	3.6
1	XA	1056	U	3.6
43	YY	71	LYS	3.6
17	QQ	22	LEU	3.6
19	QS	79	THR	3.6
7	XG	20	ASP	3.6
27	RE	128	SER	3.6
48	Y3	19	GLN	3.5
1	QA	744	C	3.5
1	XA	307	C	3.5
24	RA	912	C	3.5
24	YA	34	C	3.5

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Mol	Chain	Res	Type	RSRZ
24	YA	2063	C	3.5
33	RO	7	TYR	3.5
7	QG	39	ALA	3.5
16	XP	25	ARG	3.5
36	YR	47	PHE	3.5
54	R9	37	GLY	3.5
24	RA	223	A	3.5
32	RN	115	ARG	3.5
53	Y8	55	ALA	3.5
35	YQ	21	THR	3.5
24	RA	2402	C	3.5
16	QP	9	PHE	3.5
34	YP	61	ARG	3.5
37	RS	8	GLU	3.5
37	YS	2	ALA	3.5
1	QA	1348	U	3.5
24	RA	2062	A	3.5
24	YA	1762	A	3.5
24	YA	2439	A	3.5
1	QA	1224	G	3.5
24	RA	2894	G	3.5
26	YD	41	GLY	3.5
20	XT	19	SER	3.5
13	QM	120	LYS	3.5
46	R1	42	GLN	3.5
2	XB	26	PRO	3.5
16	QP	24	ALA	3.5
26	RD	181	GLU	3.5
32	RN	84	LYS	3.5
42	YX	78	LYS	3.5
3	QC	196	LEU	3.5
24	RA	271(C)	U	3.5
14	QN	12	ARG	3.5
48	R3	3	ARG	3.5
1	XA	1206	G	3.5
37	RS	37	ALA	3.5
5	QE	118	ILE	3.5
8	QH	111	ILE	3.5
41	RW	6	ILE	3.5
48	Y3	13	ILE	3.5
36	RR	5	LYS	3.5
36	YR	74	LYS	3.5

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Mol	Chain	Res	Type	RSRZ
3	QC	164	ARG	3.5
10	QJ	66	ARG	3.5
1	QA	795	C	3.5
5	QE	106	PRO	3.5
27	RE	151	TYR	3.4
46	R1	88	LYS	3.4
9	XI	109	VAL	3.4
22	XV	55	U	3.4
1	QA	162	A	3.4
2	XB	158	LEU	3.4
4	XD	137	SER	3.4
10	QJ	65	LEU	3.4
10	QJ	85	LEU	3.4
44	YZ	72	ARG	3.4
24	RA	2330	G	3.4
2	QB	238	LEU	3.4
7	XG	80	VAL	3.4
1	QA	1149	C	3.4
24	RA	1097	U	3.4
4	XD	29	PRO	3.4
10	XJ	62	HIS	3.4
16	XP	1	MET	3.4
1	QA	631	G	3.4
1	QA	1368	G	3.4
1	XA	942	G	3.4
24	RA	2110	G	3.4
34	YP	70	GLN	3.4
13	QM	5	ALA	3.4
26	RD	225	ALA	3.4
1	QA	103	C	3.4
1	XA	1116	C	3.4
27	YE	104	VAL	3.4
42	RX	49	VAL	3.4
27	YE	163	GLU	3.4
22	XV	33	U	3.4
13	XM	99	ARG	3.4
26	RD	268	ARG	3.4
28	RF	70	THR	3.4
24	YA	1536	A	3.4
31	RI	2	LYS	3.4
26	YD	175	LEU	3.4
26	YD	224	ALA	3.4

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Mol	Chain	Res	Type	RSRZ
19	XS	58	VAL	3.4
54	Y9	25	VAL	3.4
9	QI	115	GLY	3.4
24	RA	1107	G	3.4
27	RE	154	LYS	3.4
53	Y8	3	LYS	3.4
24	RA	2118	U	3.4
35	YQ	39	PRO	3.4
4	QD	139	ARG	3.4
4	XD	66	ARG	3.4
7	QG	78	ARG	3.4
27	RE	156	MET	3.3
39	YU	4	ALA	3.3
34	YP	71	VAL	3.3
1	QA	818	G	3.3
1	QA	876	G	3.3
1	XA	1309	G	3.3
24	RA	2115	G	3.3
36	RR	42	LYS	3.3
53	R8	57	ARG	3.3
2	XB	148	TYR	3.3
37	YS	7	TYR	3.3
1	XA	1527	C	3.3
24	RA	2111	C	3.3
1	QA	1287	A	3.3
1	XA	532	A	3.3
8	XH	4	ASP	3.3
27	YE	25	VAL	3.3
44	YZ	74	VAL	3.3
45	Y0	38	VAL	3.3
46	Y1	91	LYS	3.3
53	R8	52	LYS	3.3
4	XD	73	ARG	3.3
26	RD	262	ARG	3.3
27	RE	153	GLY	3.3
43	RY	35	TYR	3.3
26	YD	240	ALA	3.3
37	RS	57	LYS	3.3
41	RW	98	LYS	3.3
1	XA	81	G	3.3
22	XV	37	G	3.3
23	XX	2	G	3.3

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Mol	Chain	Res	Type	RSRZ
24	RA	2003	G	3.3
24	YA	974	G	3.3
24	YA	2506	U	3.3
1	QA	824	C	3.3
24	RA	1124	C	3.3
24	RA	1781	C	3.3
24	RA	2145	C	3.3
24	YA	790	C	3.3
5	QE	12	LEU	3.3
1	QA	109	A	3.3
53	Y8	11	LYS	3.3
12	XL	96	VAL	3.3
17	QQ	35	VAL	3.3
13	XM	95	GLY	3.3
19	XS	8	GLY	3.3
4	QD	207	TYR	3.3
12	XL	98	TYR	3.3
53	R8	56	GLU	3.3
24	RA	2189	U	3.3
12	XL	21	LYS	3.3
39	RU	30	LYS	3.3
47	R2	8	LYS	3.3
24	RA	2179	C	3.3
24	YA	2321	G	3.3
1	XA	1044	A	3.3
1	XA	1360	A	3.3
5	XE	24	ARG	3.3
24	RA	1095	A	3.3
24	RA	1103	A	3.3
24	YA	945	A	3.3
38	RT	97	ALA	3.3
39	RU	97	ASP	3.3
11	QK	117	ASN	3.3
19	XS	84	GLY	3.3
12	XL	6	THR	3.3
28	YF	97	TYR	3.3
41	RW	39	THR	3.3
30	YH	47	GLU	3.3
34	RP	35	HIS	3.3
13	QM	81	LEU	3.2
30	YH	71	LEU	3.2
42	RX	9	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
2	QB	188	ALA	3.2
27	YE	205	ALA	3.2
35	RQ	10	ARG	3.2
26	RD	185	VAL	3.2
28	RF	81	PRO	3.2
32	YN	62	VAL	3.2
43	YY	17	SER	3.2
24	RA	2109	U	3.2
27	YE	117	MET	3.2
36	RR	69	ASP	3.2
24	RA	654(B)	C	3.2
24	YA	2402	C	3.2
35	RQ	100	GLY	3.2
8	XH	20	TYR	3.2
22	XV	74	A	3.2
24	RA	1084	A	3.2
1	XA	104	G	3.2
8	QH	133	LEU	3.2
9	XI	99	LEU	3.2
18	XR	76	LEU	3.2
3	QC	131	ARG	3.2
11	XK	21	ILE	3.2
12	QL	85	ILE	3.2
13	XM	91	ARG	3.2
13	XM	94	ARG	3.2
20	XT	55	ILE	3.2
37	RS	20	ARG	3.2
45	R0	77	ARG	3.2
28	YF	132	VAL	3.2
46	R1	12	PRO	3.2
41	RW	63	ASP	3.2
19	QS	8	GLY	3.2
19	XS	39	THR	3.2
4	QD	54	TYR	3.2
35	RQ	80	GLU	3.2
36	YR	71	GLN	3.2
21	XU	13	ILE	3.2
46	Y1	89	GLU	3.2
27	RE	76	ARG	3.2
30	YH	170	ARG	3.2
37	YS	9	ARG	3.2
14	XN	25	VAL	3.2

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Mol	Chain	Res	Type	RSRZ
26	YD	267	SER	3.2
24	YA	2103	C	3.2
2	QB	179	LYS	3.2
27	YE	133	LYS	3.2
41	YW	98	LYS	3.2
1	QA	377	G	3.2
20	XT	9	ASN	3.2
22	XV	2	G	3.2
24	YA	1058	G	3.2
2	XB	152	PHE	3.2
10	QJ	50	ILE	3.2
9	QI	44	VAL	3.2
12	QL	43	VAL	3.2
27	RE	159	HIS	3.2
31	RI	18	VAL	3.2
38	RT	28	VAL	3.2
52	Y7	1	MET	3.2
11	XK	124	LYS	3.2
44	RZ	78	LYS	3.2
50	R5	9	LYS	3.2
1	XA	1212	U	3.2
4	XD	87	GLY	3.2
42	YX	3	THR	3.2
7	QG	97	GLN	3.2
47	R2	7	ARG	3.2
44	YZ	178	GLU	3.2
1	QA	60	A	3.2
1	XA	1113	C	3.2
20	QT	12	ALA	3.2
26	YD	184	LYS	3.2
35	YQ	55	VAL	3.2
39	RU	22	LYS	3.2
48	Y3	50	VAL	3.2
54	Y9	13	LYS	3.2
1	QA	1373	G	3.2
8	QH	135	CYS	3.2
52	Y7	47	ARG	3.2
5	XE	81	GLU	3.2
43	RY	40	GLU	3.2
47	Y2	66	GLU	3.2
1	XA	1240	U	3.2
24	YA	2296	U	3.2

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Mol	Chain	Res	Type	RSRZ
3	XC	178	LEU	3.2
1	QA	901	A	3.1
20	XT	22	ARG	3.1
24	RA	2452	C	3.1
28	YF	44	ARG	3.1
7	XG	37	ASN	3.1
40	RV	80	GLN	3.1
13	QM	115	LYS	3.1
46	Y1	92	LYS	3.1
14	QN	25	VAL	3.1
30	RH	125	VAL	3.1
1	QA	1311	G	3.1
24	RA	1538	G	3.1
1	XA	1307	U	3.1
1	XA	1308	U	3.1
26	YD	262	ARG	3.1
54	Y9	37	GLY	3.1
52	R7	22	MET	3.1
54	R9	13	LYS	3.1
4	QD	101	LEU	3.1
26	RD	240	ALA	3.1
28	RF	161	GLU	3.1
30	RH	71	LEU	3.1
1	XA	328	C	3.1
1	XA	1043	C	3.1
24	YA	985	C	3.1
36	YR	52	ILE	3.1
7	QG	5	ARG	3.1
45	R0	41	ARG	3.1
21	QU	11	GLY	3.1
37	YS	4	LEU	3.1
7	QG	40	ALA	3.1
16	QP	2	VAL	3.1
44	YZ	175	VAL	3.1
12	XL	16	GLU	3.1
24	RA	2166	G	3.1
32	YN	68	GLU	3.1
1	QA	793	U	3.1
24	RA	161	U	3.1
24	YA	1060	U	3.1
38	RT	50	ILE	3.1
8	XH	101	PRO	3.1

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Mol	Chain	Res	Type	RSRZ
42	RX	85	PRO	3.1
46	Y1	12	PRO	3.1
19	XS	7	LYS	3.1
30	RH	170	ARG	3.1
53	R8	21	LYS	3.1
28	YF	71	GLY	3.1
15	XO	57	LEU	3.1
17	XQ	26	GLN	3.1
53	R8	50	LEU	3.1
23	QX	8	A	3.1
1	XA	63	C	3.1
4	XD	71	SER	3.1
22	QV	76	C	3.1
29	RG	39	ILE	3.1
27	RE	113	PHE	3.1
16	QP	27	LYS	3.1
34	YP	36	LYS	3.1
1	QA	1364	U	3.1
1	XA	793	U	3.1
24	YA	2698	U	3.1
43	RY	12	THR	3.1
25	RB	87	G	3.1
42	RX	83	VAL	3.1
35	RQ	47	ILE	3.1
12	XL	32	PHE	3.1
43	RY	33	LYS	3.1
4	QD	209	ARG	3.1
29	RG	21	ARG	3.1
37	YS	30	ARG	3.1
40	RV	83	ARG	3.1
24	YA	1177	A	3.1
29	RG	152	LEU	3.1
35	YQ	17	LEU	3.1
51	Y6	10	LEU	3.1
4	QD	23	GLY	3.1
24	RA	574	C	3.1
35	YQ	106	VAL	3.0
19	XS	85	LYS	3.0
28	RF	59	TYR	3.0
34	RP	36	LYS	3.0
1	QA	209	U	3.0
8	XH	105	ARG	3.0

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Mol	Chain	Res	Type	RSRZ
20	QT	60	GLU	3.0
44	RZ	79	ARG	3.0
17	XQ	84	LEU	3.0
1	QA	1310	G	3.0
3	QC	165	THR	3.0
2	QB	162	ILE	3.0
9	XI	119	ALA	3.0
3	XC	127	ARG	3.0
50	R5	19	ARG	3.0
1	QA	1509	C	3.0
22	QV	75	C	3.0
24	RA	2825	C	3.0
27	RE	126	PRO	3.0
26	RD	47	GLY	3.0
38	YT	4	GLY	3.0
41	YW	22	ASP	3.0
21	XU	3	LYS	3.0
26	RD	2	ALA	3.0
42	YX	34	ALA	3.0
37	RS	3	ARG	3.0
46	R1	97	LEU	3.0
43	RY	29	GLU	3.0
48	R3	60	GLU	3.0
1	QA	1190	G	3.0
1	XA	1220	G	3.0
24	YA	138	G	3.0
23	XX	15	A	3.0
24	RA	1132	A	3.0
46	Y1	37	ILE	3.0
3	XC	150	LYS	3.0
9	QI	116	LYS	3.0
17	QQ	26	GLN	3.0
27	YE	72	VAL	3.0
1	QA	1116	C	3.0
1	XA	1115	C	3.0
22	XV	1	C	3.0
24	YA	2690	C	3.0
5	QE	15	ARG	3.0
31	RI	1	MET	3.0
1	XA	1025	U	3.0
11	XK	121	PRO	3.0
19	XS	76	PRO	3.0

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Mol	Chain	Res	Type	RSRZ
24	RA	2797	U	3.0
20	XT	58	LYS	3.0
40	YV	74	LYS	3.0
41	RW	97	LYS	3.0
5	QE	29	GLY	3.0
27	YE	193	GLY	3.0
8	QH	3	THR	3.0
14	XN	22	THR	3.0
33	RO	3	GLN	3.0
9	QI	75	ASP	3.0
28	YF	181	LEU	3.0
21	QU	24	ARG	3.0
39	RU	91	ASP	3.0
46	R1	63	ALA	3.0
52	R7	21	ARG	3.0
53	Y8	46	ARG	3.0
1	QA	630	G	3.0
1	XA	775	G	3.0
1	XA	901	A	3.0
1	XA	1117	G	3.0
1	XA	1174	G	3.0
24	RA	887	A	3.0
24	YA	615	G	3.0
24	YA	2497	A	3.0
2	QB	183	PRO	3.0
9	XI	77	ILE	3.0
30	YH	9	ILE	3.0
46	R1	92	LYS	3.0
24	RA	976	C	3.0
24	RA	2139	C	3.0
24	YA	2174	C	3.0
3	XC	165	THR	3.0
28	YF	193	VAL	3.0
5	XE	18	ARG	3.0
7	QG	6	ARG	3.0
15	XO	65	ARG	3.0
21	QU	22	ARG	3.0
34	YP	55	ARG	3.0
22	XV	48	U	3.0
24	RA	2357	U	3.0
19	XS	69	HIS	2.9
34	YP	13	ASN	2.9

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Mol	Chain	Res	Type	RSRZ
19	XS	30	LEU	2.9
13	XM	85	GLY	2.9
21	XU	4	GLY	2.9
9	XI	66	ARG	2.9
24	YA	529	A	2.9
24	YA	2042	A	2.9
45	Y0	55	ARG	2.9
13	QM	76	ALA	2.9
30	RH	150	ALA	2.9
1	QA	332	G	2.9
1	XA	1523	G	2.9
24	YA	1816	G	2.9
10	XJ	73	ASP	2.9
1	XA	754	C	2.9
5	XE	83	GLU	2.9
12	QL	16	GLU	2.9
8	QH	2	LEU	2.9
24	YA	1061	U	2.9
24	YA	1535	U	2.9
4	QD	118	ARG	2.9
34	RP	20	GLY	2.9
27	RE	116	VAL	2.9
27	YE	188	VAL	2.9
46	Y1	26	ARG	2.9
28	YF	70	THR	2.9
13	XM	2	ALA	2.9
26	YD	225	ALA	2.9
18	QR	76	LEU	2.9
27	RE	5	LEU	2.9
1	QA	975	A	2.9
24	YA	2712(A)	A	2.9
29	RG	155	MET	2.9
34	YP	60	MET	2.9
14	XN	60	SER	2.9
33	YO	36	GLY	2.9
36	RR	8	ARG	2.9
19	QS	41	VAL	2.9
38	YT	72	VAL	2.9
1	QA	102	G	2.9
1	XA	853	G	2.9
24	RA	2083	G	2.9
24	YA	975	G	2.9

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Mol	Chain	Res	Type	RSRZ
20	QT	29	LYS	2.9
16	XP	19	ILE	2.9
2	QB	102	LEU	2.9
8	QH	20	TYR	2.9
27	RE	160	TYR	2.9
26	RD	232	PRO	2.9
41	RW	40	ASN	2.9
7	XG	115	ARG	2.9
13	QM	102	ARG	2.9
26	RD	242	ARG	2.9
46	R1	4	VAL	2.9
17	XQ	37	LYS	2.9
1	XA	1333	A	2.9
24	RA	1057	A	2.9
24	RA	2059	A	2.9
41	YW	86	LEU	2.9
38	YT	22	PHE	2.9
41	RW	46	PHE	2.9
26	YD	176	ARG	2.9
31	RI	27	ARG	2.9
1	QA	135	C	2.9
1	QA	1366	C	2.9
1	QA	81	G	2.9
1	QA	1528	U	2.9
24	RA	857	C	2.9
24	YA	888	C	2.9
25	RB	30	C	2.9
4	QD	84	LYS	2.9
24	RA	1226	G	2.9
30	RH	108	GLY	2.9
40	RV	85	LYS	2.9
14	QN	10	ALA	2.9
36	YR	113	LEU	2.9
26	RD	53	PHE	2.9
38	YT	1	MET	2.9
12	XL	86	ARG	2.9
10	QJ	57	LYS	2.9
34	RP	29	LYS	2.9
24	RA	225	A	2.8
41	RW	94	ASP	2.8
2	QB	227	GLY	2.8
26	RD	51	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
43	YY	15	VAL	2.8
32	YN	93	THR	2.8
33	RO	19	ILE	2.8
20	XT	12	ALA	2.8
1	XA	1065	U	2.8
22	XV	56	U	2.8
24	RA	1078	U	2.8
1	QA	63	C	2.8
1	XA	311	C	2.8
24	RA	889	C	2.8
24	RA	1102	C	2.8
24	RA	2143	C	2.8
24	RA	2804	C	2.8
7	XG	41	ARG	2.8
45	R0	11	ARG	2.8
1	QA	396	G	2.8
1	XA	530	G	2.8
1	XA	1003	G	2.8
11	QK	113	PRO	2.8
22	QV	2	G	2.8
23	QX	9	G	2.8
34	RP	72	PRO	2.8
43	YY	33	LYS	2.8
2	QB	165	VAL	2.8
6	XF	7	ASN	2.8
46	Y1	4	VAL	2.8
54	Y9	28	GLU	2.8
3	XC	152	ILE	2.8
5	QE	119	LEU	2.8
12	XL	88	GLY	2.8
29	RG	34	LEU	2.8
36	YR	44	LEU	2.8
44	YZ	118	GLN	2.8
45	Y0	40	GLN	2.8
48	R3	26	LEU	2.8
12	QL	44	THR	2.8
2	XB	163	PHE	2.8
23	XX	14	A	2.8
24	RA	1554	A	2.8
24	YA	1353	A	2.8
25	RB	29	A	2.8
2	XB	27	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
12	XL	89	ARG	2.8
20	XT	25	ARG	2.8
9	XI	47	LEU	2.8
10	QJ	59	SER	2.8
16	QP	60	LEU	2.8
32	RN	116	LEU	2.8
34	RP	25	SER	2.8
1	XA	1512	U	2.8
12	QL	88	GLY	2.8
40	YV	80	GLN	2.8
2	QB	6	THR	2.8
33	RO	37	ASP	2.8
35	RQ	21	THR	2.8
1	XA	1112	C	2.8
1	XA	1114	C	2.8
1	XA	1214	C	2.8
24	RA	2690	C	2.8
24	YA	1797	C	2.8
1	QA	326	G	2.8
1	XA	31	G	2.8
24	RA	226	G	2.8
24	RA	1125	G	2.8
26	RD	211	ARG	2.8
36	RR	57	ARG	2.8
52	R7	23	ARG	2.8
4	QD	146	ILE	2.8
4	XD	68	TYR	2.8
27	YE	151	TYR	2.8
34	RP	10	PRO	2.8
42	RX	39	ILE	2.8
9	QI	14	VAL	2.8
20	QT	88	VAL	2.8
44	YZ	86	VAL	2.8
8	QH	99	GLU	2.8
33	RO	5	GLN	2.8
35	YQ	91	GLU	2.8
26	YD	2	ALA	2.8
14	QN	17	LYS	2.8
26	RD	258	LYS	2.8
28	RF	89	VAL	2.8
40	YV	36	PRO	2.8
1	QA	1354	C	2.8

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Mol	Chain	Res	Type	RSRZ
1	QA	1367	C	2.8
12	QL	98	TYR	2.8
23	QX	6	C	2.8
10	XJ	61	GLU	2.8
27	YE	71	GLY	2.8
34	RP	26	GLY	2.8
35	RQ	33	GLY	2.8
11	QK	125	PHE	2.8
35	YQ	65	PHE	2.8
1	XA	324	G	2.8
24	RA	2599	G	2.8
24	YA	275	G	2.8
24	YA	1559	G	2.8
45	R0	55	ARG	2.8
4	QD	21	LEU	2.8
8	QH	134	ILE	2.8
41	RW	106	ILE	2.8
1	QA	968	A	2.8
1	XA	1513	A	2.8
26	RD	36	PRO	2.8
54	R9	30	PRO	2.8
2	QB	228	GLY	2.8
20	QT	18	GLN	2.8
13	QM	2	ALA	2.8
33	RO	33	ALA	2.8
24	RA	1205	U	2.8
24	RA	1249	U	2.8
24	YA	12	U	2.8
41	RW	92	ARG	2.7
54	Y9	9	ARG	2.7
1	XA	1234	C	2.7
1	XA	1263	C	2.7
22	XV	57	C	2.7
24	YA	1672	C	2.7
2	XB	136	VAL	2.7
31	RI	37	VAL	2.7
40	YV	37	VAL	2.7
39	YU	57	PHE	2.7
34	YP	43	GLY	2.7
20	XT	94	ALA	2.7
36	RR	101	ALA	2.7
42	YX	38	GLU	2.7

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Mol	Chain	Res	Type	RSRZ
24	RA	2184	G	2.7
53	Y8	33	ASN	2.7
28	YF	41	LEU	2.7
45	R0	21	LEU	2.7
1	XA	1306	A	2.7
8	XH	86	ILE	2.7
24	YA	332	A	2.7
24	YA	1460	A	2.7
41	RW	50	VAL	2.7
28	YF	66	PRO	2.7
44	YZ	28	MET	2.7
2	QB	224	GLN	2.7
49	Y4	63	TYR	2.7
26	YD	156	ALA	2.7
11	QK	126	ARG	2.7
13	QM	88	ARG	2.7
15	QO	54	ARG	2.7
21	XU	10	ARG	2.7
36	RR	22	ARG	2.7
36	YR	10	LEU	2.7
37	YS	13	ARG	2.7
8	QH	86	ILE	2.7
4	XD	102	ASP	2.7
8	QH	73	ASP	2.7
16	QP	68	ASP	2.7
26	YD	230	ASP	2.7
28	YF	39	TRP	2.7
31	YI	118	LYS	2.7
28	YF	139	PHE	2.7
22	XV	38	G	2.7
24	RA	2119	A	2.7
24	RA	2135	A	2.7
24	RA	2795	G	2.7
24	YA	228	A	2.7
24	YA	1059	G	2.7
24	YA	2334	G	2.7
24	YA	2795	G	2.7
8	QH	49	GLU	2.7
1	QA	743	U	2.7
8	QH	15	ASN	2.7
24	RA	1993	U	2.7
12	QL	20	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
19	XS	55	LYS	2.7
40	YV	84	LYS	2.7
46	R1	10	LYS	2.7
10	XJ	72	VAL	2.7
14	XN	37	PHE	2.7
30	YH	57	ASP	2.7
31	RI	20	ASP	2.7
36	YR	49	ASP	2.7
1	XA	1045	C	2.7
24	YA	1630(A)	C	2.7
24	YA	2177	C	2.7
26	YD	168	ARG	2.7
29	RG	41	GLN	2.7
8	XH	90	GLY	2.7
41	YW	93	ALA	2.7
47	R2	39	ALA	2.7
3	XC	8	ILE	2.7
13	QM	35	GLU	2.7
35	YQ	105	GLU	2.7
14	QN	15	LYS	2.7
14	XN	58	LYS	2.7
32	YN	70	LYS	2.7
24	RA	1762	A	2.7
45	Y0	53	MET	2.7
4	QD	157	LEU	2.7
4	XD	8	VAL	2.7
1	QA	1003	G	2.7
18	XR	31	LEU	2.7
20	XT	84	LEU	2.7
22	XV	53	G	2.7
24	RA	1681	G	2.7
24	RA	2148	G	2.7
24	RA	2160	G	2.7
24	YA	1835	G	2.7
12	QL	5	PRO	2.7
14	QN	14	PRO	2.7
25	YB	1	U	2.7
29	YG	87	PRO	2.7
48	R3	2	PRO	2.7
21	QU	15	ARG	2.7
34	RP	15	ARG	2.7
38	YT	112	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
40	YV	83	ARG	2.7
10	XJ	50	ILE	2.7
9	QI	114	TYR	2.7
30	YH	157	TYR	2.7
28	YF	35	GLU	2.7
43	YY	62	GLU	2.7
33	YO	66	LYS	2.7
39	RU	34	LYS	2.7
43	RY	5	MET	2.7
1	XA	312	C	2.7
1	XA	1208	C	2.7
24	RA	2755	C	2.7
3	XC	196	LEU	2.7
32	YN	98	VAL	2.6
12	XL	125	PRO	2.6
19	QS	59	PRO	2.6
27	YE	70	ALA	2.6
37	RS	6	ALA	2.6
44	YZ	110	GLY	2.6
24	RA	983	A	2.6
53	Y8	64	TYR	2.6
45	Y0	49	LYS	2.6
35	RQ	38	GLU	2.6
24	RA	1341	U	2.6
30	RH	103	LEU	2.6
1	QA	333	G	2.6
22	QV	3	G	2.6
22	XV	36	G	2.6
24	RA	2581	G	2.6
26	YD	106	ILE	2.6
2	QB	237	ALA	2.6
27	RE	123	ALA	2.6
30	RH	120	GLY	2.6
31	RI	26	ALA	2.6
35	YQ	19	GLY	2.6
44	RZ	114	GLY	2.6
53	R8	51	ALA	2.6
17	XQ	87	LYS	2.6
26	RD	184	LYS	2.6
37	RS	92	TYR	2.6
42	YX	69	TYR	2.6
43	RY	107	ASP	2.6

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Mol	Chain	Res	Type	RSRZ
1	QA	967	C	2.6
24	RA	837	C	2.6
24	RA	2185	C	2.6
19	XS	17	GLU	2.6
40	YV	53	GLU	2.6
43	YY	5	MET	2.6
8	XH	119	LEU	2.6
3	QC	153	VAL	2.6
11	QK	84	VAL	2.6
17	QQ	9	VAL	2.6
28	RF	36	VAL	2.6
1	QA	101	A	2.6
1	QA	1519	A	2.6
8	QH	102	ARG	2.6
24	RA	1189	A	2.6
24	YA	229	A	2.6
24	YA	887	A	2.6
29	YG	72	ARG	2.6
1	XA	1062	U	2.6
24	RA	2585	U	2.6
27	YE	152	LYS	2.6
42	YX	53	LYS	2.6
43	RY	34	LYS	2.6
53	R8	15	LYS	2.6
32	YN	72	TYR	2.6
1	XA	1187	G	2.6
4	XD	163	GLU	2.6
23	QX	21	G	2.6
24	YA	1699	G	2.6
38	RT	46	GLU	2.6
2	QB	229	VAL	2.6
17	QQ	36	ILE	2.6
43	RY	24	VAL	2.6
44	RZ	124	ILE	2.6
54	Y9	7	VAL	2.6
26	YD	52	ARG	2.6
39	RU	28	ARG	2.6
45	R0	74	ARG	2.6
7	QG	35	LYS	2.6
20	XT	34	LYS	2.6
1	XA	998(A)	C	2.6
1	XA	1354	C	2.6

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Mol	Chain	Res	Type	RSRZ
17	QQ	47	PRO	2.6
24	RA	1075	C	2.6
5	QE	102	ALA	2.6
54	Y9	34	GLN	2.6
2	XB	98	LEU	2.6
32	YN	26	LEU	2.6
34	RP	110	TYR	2.6
37	YS	12	PHE	2.6
9	QI	105	ASP	2.6
24	RA	1783	A	2.6
24	YA	2062	A	2.6
24	YA	2173	A	2.6
24	YA	2392	A	2.6
53	Y8	56	GLU	2.6
17	QQ	85	VAL	2.6
21	QU	13	ILE	2.6
27	YE	111	ARG	2.6
45	Y0	11	ARG	2.6
8	XH	21	LYS	2.6
4	XD	64	LEU	2.6
5	XE	104	ALA	2.6
28	YF	110	LEU	2.6
36	YR	29	LEU	2.6
38	RT	24	PRO	2.6
39	YU	116	ALA	2.6
52	R7	31	LEU	2.6
3	XC	9	GLY	2.6
4	QD	167	GLY	2.6
14	QN	38	GLY	2.6
53	R8	45	GLY	2.6
1	XA	776	G	2.6
1	XA	1001	G	2.6
4	QD	93	PHE	2.6
24	YA	2125	G	2.6
25	RB	89	G	2.6
3	QC	14	ILE	2.6
3	XC	166	GLU	2.6
1	XA	1260	C	2.6
2	XB	195	ASP	2.6
30	RH	155	SER	2.6
2	XB	133	LYS	2.6
2	XB	157	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
7	QG	9	VAL	2.6
24	RA	974(A)	C	2.6
24	YA	2798	C	2.6
26	YD	14	ARG	2.6
36	YR	66	VAL	2.6
38	YT	28	VAL	2.6
44	RZ	81	ARG	2.6
1	XA	1287	A	2.6
22	XV	39	A	2.6
24	YA	1981	A	2.6
24	YA	2801	A	2.6
31	RI	36	ALA	2.6
35	RQ	140	ALA	2.6
39	YU	117	GLN	2.6
5	XE	22	GLY	2.6
24	RA	2180	U	2.6
24	YA	270(L)	U	2.6
26	YD	53	PHE	2.6
3	QC	31	HIS	2.5
17	QQ	59	ILE	2.5
29	RG	131	TYR	2.5
46	R1	43	TYR	2.5
3	QC	206	GLU	2.5
4	XD	151	LYS	2.5
8	XH	84	ARG	2.5
12	XL	20	LYS	2.5
26	RD	183	ARG	2.5
38	YT	11	GLU	2.5
46	Y1	61	ARG	2.5
7	QG	21	VAL	2.5
27	RE	198	VAL	2.5
7	XG	45	ASP	2.5
16	QP	74	LEU	2.5
30	RH	105	LEU	2.5
1	QA	107	G	2.5
1	XA	1355	G	2.5
1	XA	1365	G	2.5
24	RA	944	G	2.5
24	YA	381	G	2.5
24	YA	830	G	2.5
28	RF	42	ALA	2.5
1	QA	88	C	2.5

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Mol	Chain	Res	Type	RSRZ
1	QA	110	C	2.5
1	XA	1063	C	2.5
34	RP	57	THR	2.5
20	XT	29	LYS	2.5
48	Y3	17	LYS	2.5
20	QT	23	ARG	2.5
26	YD	169	GLU	2.5
1	XA	1111	A	2.5
1	XA	1188	A	2.5
12	XL	10	LEU	2.5
24	RA	1177	A	2.5
46	R1	94	LEU	2.5
29	RG	4	ASP	2.5
54	Y9	12	ASP	2.5
40	RV	75	PHE	2.5
46	Y1	48	LYS	2.5
26	YD	259	THR	2.5
19	QS	81	ARG	2.5
3	XC	167	TRP	2.5
8	QH	95	VAL	2.5
46	R1	95	LEU	2.5
1	QA	136	C	2.5
8	XH	31	PHE	2.5
14	QN	37	PHE	2.5
24	RA	2159	G	2.5
24	YA	2124	G	2.5
25	RB	54	G	2.5
24	RA	1052	C	2.5
24	YA	1100	C	2.5
3	QC	152	ILE	2.5
45	R0	42	GLY	2.5
53	R8	59	LYS	2.5
1	QA	1498	U	2.5
1	XA	1046	A	2.5
24	RA	1069	A	2.5
24	RA	1096	A	2.5
24	RA	2488	A	2.5
24	YA	257	A	2.5
24	YA	270(Z)	U	2.5
24	YA	988	A	2.5
2	QB	187	LEU	2.5
33	RO	25	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
34	YP	27	HIS	2.5
37	RS	94	TYR	2.5
47	Y2	60	LEU	2.5
47	Y2	63	VAL	2.5
53	Y8	48	PHE	2.5
10	XJ	20	ALA	2.5
16	QP	84	ALA	2.5
26	YD	20	ASP	2.5
30	RH	96	ALA	2.5
31	RI	88	ILE	2.5
34	YP	12	ALA	2.5
42	YX	8	ILE	2.5
51	R6	22	ALA	2.5
5	XE	52	PRO	2.5
39	RU	26	GLY	2.5
53	Y8	45	GLY	2.5
5	QE	120	THR	2.5
29	RG	161	THR	2.5
42	YX	92	LEU	2.5
52	Y7	42	LEU	2.5
2	QB	81	VAL	2.5
7	XG	118	VAL	2.5
33	RO	58	VAL	2.5
35	RQ	7	MET	2.5
41	RW	85	VAL	2.5
1	QA	43	C	2.5
1	XA	811	C	2.5
1	XA	962	C	2.5
24	RA	2137	C	2.5
1	QA	324	G	2.5
1	QA	550	G	2.5
1	QA	791	G	2.5
1	QA	933	G	2.5
1	XA	742	G	2.5
24	RA	325	G	2.5
24	RA	363	G	2.5
24	RA	508	G	2.5
24	RA	1025	G	2.5
24	RA	2655	G	2.5
24	YA	2331	G	2.5
48	R3	34	GLU	2.5
25	RB	1	U	2.5

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Mol	Chain	Res	Type	RSRZ
1	XA	1280	A	2.5
24	YA	1631	A	2.5
24	YA	2693	A	2.5
20	QT	55	ILE	2.5
42	RX	8	ILE	2.5
47	R2	41	ILE	2.5
38	YT	20	PRO	2.5
17	XQ	68	ARG	2.5
19	XS	20	LEU	2.5
20	QT	72	LEU	2.5
21	XU	24	ARG	2.5
27	RE	65	GLY	2.5
34	RP	22	GLY	2.5
42	YX	65	ARG	2.5
45	R0	44	ARG	2.5
10	XJ	48	THR	2.5
32	RN	1	MET	2.5
39	RU	31	SER	2.5
7	QG	80	VAL	2.5
44	YZ	111	VAL	2.5
52	R7	46	VAL	2.5
12	XL	120	TYR	2.5
13	QM	79	LYS	2.4
17	QQ	49	GLU	2.4
17	XQ	96	GLU	2.4
4	QD	94	LEU	2.4
4	XD	160	GLN	2.4
45	Y0	12	ASN	2.4
11	XK	98	LEU	2.4
12	QL	48	PRO	2.4
42	RX	70	LEU	2.4
14	XN	12	ARG	2.4
19	XS	81	ARG	2.4
49	Y4	68	ARG	2.4
1	QA	163	C	2.4
1	QA	328	C	2.4
1	XA	586	C	2.4
1	XA	1514	C	2.4
22	QV	71	C	2.4
22	XV	17	C	2.4
24	RA	970	C	2.4
24	YA	2175	C	2.4

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Mol	Chain	Res	Type	RSRZ
24	YA	2295	C	2.4
25	YB	47	C	2.4
39	RU	56	ASP	2.4
1	QA	1372	U	2.4
33	RO	21	CYS	2.4
34	YP	58	THR	2.4
1	QA	575	G	2.4
1	QA	1355	G	2.4
1	XA	1185	G	2.4
11	XK	82	VAL	2.4
24	RA	1070	A	2.4
24	RA	2121	G	2.4
24	YA	1176	G	2.4
24	YA	1248	G	2.4
24	YA	2104	G	2.4
24	YA	2792	G	2.4
9	XI	114	TYR	2.4
11	XK	11	LYS	2.4
27	RE	118	LYS	2.4
3	XC	161	GLU	2.4
20	XT	16	HIS	2.4
28	RF	82	ILE	2.4
48	Y3	34	GLU	2.4
51	Y6	54	ILE	2.4
5	QE	31	LEU	2.4
10	XJ	71	LEU	2.4
26	RD	80	ALA	2.4
28	RF	41	LEU	2.4
29	RG	3	LEU	2.4
36	YR	75	LEU	2.4
36	YR	116	LEU	2.4
45	R0	75	LEU	2.4
26	YD	48	ARG	2.4
28	YF	38	ARG	2.4
29	RG	83	ARG	2.4
36	RR	104	ARG	2.4
54	R9	18	ARG	2.4
15	XO	19	PRO	2.4
26	YD	170	GLY	2.4
30	YH	41	MET	2.4
34	YP	20	GLY	2.4
36	YR	69	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
38	YT	27	THR	2.4
53	R8	27	THR	2.4
12	XL	17	LYS	2.4
30	RH	113	VAL	2.4
35	RQ	8	LYS	2.4
40	YV	76	LYS	2.4
45	R0	69	PHE	2.4
17	XQ	74	LEU	2.4
27	RE	163	GLU	2.4
1	QA	386	C	2.4
1	QA	723	U	2.4
1	XA	1054	C	2.4
1	XA	1125	U	2.4
1	XA	1136	U	2.4
1	XA	1153	C	2.4
24	RA	9	U	2.4
24	RA	2105	C	2.4
24	RA	2146	C	2.4
24	RA	2695	C	2.4
28	YF	67	GLN	2.4
33	RO	17	ARG	2.4
34	YP	31	ALA	2.4
34	YP	33	ARG	2.4
37	RS	30	ARG	2.4
46	Y1	41	ARG	2.4
53	Y8	35	GLN	2.4
1	QA	787	A	2.4
1	XA	975	A	2.4
4	QD	77	ASN	2.4
24	RA	6	A	2.4
24	RA	2590	A	2.4
24	YA	2176	A	2.4
27	YE	125	GLY	2.4
1	QA	57	G	2.4
1	QA	1525	G	2.4
1	XA	108	G	2.4
1	XA	1356	G	2.4
24	RA	1816	G	2.4
24	RA	2319	G	2.4
13	XM	120	LYS	2.4
26	RD	50	THR	2.4
29	YG	75	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
46	R1	69	LYS	2.4
27	YE	160	TYR	2.4
5	QE	50	GLU	2.4
46	Y1	93	GLU	2.4
47	R2	66	GLU	2.4
7	QG	10	ARG	2.4
20	XT	23	ARG	2.4
8	QH	101	PRO	2.4
21	QU	25	LYS	2.4
30	YH	153	LYS	2.4
38	YT	25	GLY	2.4
40	YV	78	LYS	2.4
13	XM	109	THR	2.4
28	RF	193	VAL	2.4
1	XA	497	U	2.4
24	RA	1779	U	2.4
7	XG	22	LEU	2.4
7	XG	38	LEU	2.4
47	R2	35	LEU	2.4
1	XA	1367	C	2.4
24	RA	867	C	2.4
24	YA	1053	C	2.4
24	YA	2021	C	2.4
1	QA	782	A	2.4
1	QA	1183	A	2.4
1	XA	1261	A	2.4
7	XG	6	ARG	2.4
13	QM	8	GLU	2.4
35	YQ	38	GLU	2.4
34	RP	31	ALA	2.4
47	Y2	70	GLN	2.4
1	QA	331	G	2.4
1	QA	1497	G	2.4
10	XJ	22	LYS	2.4
24	RA	2101	G	2.4
24	RA	2759	G	2.4
24	YA	11	G	2.4
26	YD	67	PHE	2.4
5	QE	90	VAL	2.4
8	XH	2	LEU	2.4
27	YE	116	VAL	2.4
39	RU	62	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
48	R3	58	VAL	2.4
4	QD	47	ARG	2.4
35	RQ	6	ARG	2.4
36	YR	72	ASP	2.4
4	QD	48	ALA	2.4
32	YN	47	ALA	2.4
33	YO	108	GLU	2.4
20	QT	30	LYS	2.4
31	RI	118	LYS	2.4
32	YN	8	GLN	2.3
12	QL	94	PRO	2.3
27	YE	65	GLY	2.3
1	QA	1114	C	2.3
1	QA	1514	C	2.3
1	XA	1149	C	2.3
1	XA	1369	C	2.3
36	RR	65	LEU	2.3
46	Y1	7	ILE	2.3
12	QL	101	VAL	2.3
12	XL	11	VAL	2.3
26	YD	51	VAL	2.3
8	QH	50	ARG	2.3
13	XM	88	ARG	2.3
34	YP	49	ARG	2.3
47	Y2	69	ARG	2.3
35	YQ	83	MET	2.3
1	XA	191(B)	G	2.3
24	YA	508	G	2.3
24	YA	944	G	2.3
24	YA	2112	G	2.3
24	YA	2123	G	2.3
24	YA	2160	G	2.3
24	YA	2319	G	2.3
26	YD	35	LYS	2.3
47	R2	52	ASP	2.3
9	QI	106	ALA	2.3
26	YD	93	ALA	2.3
7	XG	97	GLN	2.3
39	YU	37	GLU	2.3
17	XQ	29	HIS	2.3
20	QT	13	LEU	2.3
26	YD	32	SER	2.3

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Mol	Chain	Res	Type	RSRZ
33	RO	8	LEU	2.3
38	RT	114	LEU	2.3
49	Y4	64	GLY	2.3
50	R5	34	PRO	2.3
19	XS	23	ASN	2.3
8	XH	95	VAL	2.3
30	RH	45	VAL	2.3
31	YI	3	VAL	2.3
39	RU	6	THR	2.3
46	R1	5	CYS	2.3
14	XN	19	ARG	2.3
22	XV	21	U	2.3
24	YA	2449	U	2.3
26	RD	48	ARG	2.3
26	YD	222	ARG	2.3
8	QH	98	LYS	2.3
20	XT	38	LYS	2.3
32	YN	84	LYS	2.3
40	RV	78	LYS	2.3
1	QA	174	C	2.3
1	QA	974	A	2.3
1	QA	1357	A	2.3
4	QD	179	GLU	2.3
24	RA	1079	C	2.3
26	RD	6	PHE	2.3
45	Y0	75	LEU	2.3
26	YD	231	HIS	2.3
28	YF	69	HIS	2.3
43	YY	6	HIS	2.3
54	R9	32	HIS	2.3
28	YF	37	VAL	2.3
3	QC	167	TRP	2.3
40	YV	45	THR	2.3
5	QE	14	ARG	2.3
8	XH	92	ARG	2.3
11	XK	12	ARG	2.3
43	YY	34	LYS	2.3
46	R1	39	LYS	2.3
1	QA	6	G	2.3
1	QA	1185	G	2.3
1	XA	661	G	2.3
24	RA	518	G	2.3

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Mol	Chain	Res	Type	RSRZ
24	RA	530	G	2.3
24	RA	2120	G	2.3
24	RA	2147	G	2.3
24	RA	2168	G	2.3
24	RA	2329	G	2.3
24	YA	30	G	2.3
24	YA	2181	G	2.3
25	RB	109	G	2.3
12	QL	120	TYR	2.3
30	YH	124	GLU	2.3
50	Y5	48	GLU	2.3
2	XB	194	PRO	2.3
24	RA	270(O)	U	2.3
24	RA	958	U	2.3
24	RA	1061	U	2.3
24	YA	2180	U	2.3
33	RO	42	SER	2.3
37	RS	31	SER	2.3
34	RP	73	GLY	2.3
37	RS	91	PRO	2.3
42	RX	71	GLY	2.3
21	XU	15	ARG	2.3
23	QX	11	A	2.3
24	RA	222	A	2.3
24	RA	423	A	2.3
24	YA	1069	A	2.3
24	YA	2059	A	2.3
28	YF	72	ARG	2.3
34	RP	39	LYS	2.3
1	QA	466	C	2.3
1	QA	586	C	2.3
1	XA	466	C	2.3
1	XA	1336	C	2.3
24	YA	1092	C	2.3
24	YA	2803	C	2.3
42	RX	66	LEU	2.3
27	RE	81	ILE	2.3
28	RF	97	TYR	2.3
28	YF	128	ALA	2.3
37	RS	18	ILE	2.3
46	Y1	60	PHE	2.3
15	XO	13	GLN	2.3

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Mol	Chain	Res	Type	RSRZ
29	RG	137	GLU	2.3
2	QB	99	GLY	2.3
7	XG	34	GLY	2.3
20	XT	64	ASP	2.3
26	RD	236	GLY	2.3
37	YS	88	ASP	2.3
11	XK	120	ARG	2.3
27	YE	76	ARG	2.3
34	YP	77	ARG	2.3
39	YU	33	ARG	2.3
1	QA	633	G	2.3
1	QA	1312	G	2.3
1	QA	1516	G	2.3
1	XA	438	G	2.3
1	XA	1057	G	2.3
1	XA	1517	G	2.3
1	XA	1530	G	2.3
22	XV	73	G	2.3
24	RA	326	G	2.3
24	YA	1997	G	2.3
15	XO	56	LEU	2.3
35	YQ	79	LEU	2.3
1	XA	999	U	2.3
1	XA	1150	U	2.3
1	XA	1235	U	2.3
24	YA	1097	U	2.3
19	XS	49	ILE	2.3
27	RE	122	PHE	2.3
29	YG	178	PHE	2.3
54	Y9	26	ILE	2.3
2	XB	218	ALA	2.3
27	RE	70	ALA	2.3
28	RF	130	ALA	2.3
31	RI	25	TYR	2.3
52	Y7	20	ALA	2.3
1	QA	325	A	2.3
1	QA	1507	A	2.3
24	RA	1971	A	2.3
24	YA	548	A	2.3
1	XA	381	C	2.3
7	XG	81	GLY	2.3
8	QH	19	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
10	QJ	52	GLY	2.3
24	RA	277	C	2.3
36	RR	39	PRO	2.3
41	RW	4	LYS	2.3
42	YX	67	GLY	2.3
26	YD	273	ARG	2.3
26	YD	198	ASN	2.2
27	YE	146	THR	2.2
19	QS	69	HIS	2.2
3	QC	94	LEU	2.2
26	YD	177	LEU	2.2
44	RZ	163	LEU	2.2
27	YE	68	ALA	2.2
34	RP	150	ALA	2.2
4	XD	83	SER	2.2
9	XI	78	LYS	2.2
14	QN	50	LYS	2.2
35	RQ	18	LYS	2.2
50	R5	10	LYS	2.2
26	RD	169	GLU	2.2
43	RY	62	GLU	2.2
50	Y5	59	GLU	2.2
1	QA	38	G	2.2
1	QA	776	G	2.2
1	QA	1002	G	2.2
1	XA	289	G	2.2
12	XL	48	PRO	2.2
15	XO	61	GLY	2.2
17	QQ	8	GLY	2.2
27	YE	59	VAL	2.2
27	YE	198	VAL	2.2
24	RA	2002	G	2.2
24	RA	2156	G	2.2
24	YA	205	G	2.2
24	YA	1101	U	2.2
32	RN	80	GLY	2.2
34	RP	37	GLY	2.2
34	YP	34	GLY	2.2
34	YP	63	PRO	2.2
46	Y1	84	GLY	2.2
10	XJ	90	LEU	2.2
20	XT	72	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
33	RO	65	THR	2.2
36	RR	111	LEU	2.2
41	YW	94	ASP	2.2
36	RR	3	HIS	2.2
12	XL	85	ILE	2.2
17	XQ	27	PHE	2.2
28	YF	129	PHE	2.2
42	YX	39	ILE	2.2
1	QA	452	A	2.2
25	YB	48	A	2.2
5	QE	21	ALA	2.2
44	YZ	7	ALA	2.2
24	RA	2050	C	2.2
24	RA	2108	C	2.2
24	YA	1793	C	2.2
25	RB	90	C	2.2
35	YQ	22	LYS	2.2
53	R8	29	LYS	2.2
20	QT	11	SER	2.2
5	QE	83	GLU	2.2
4	QD	124	GLY	2.2
8	QH	105	ARG	2.2
12	QL	127	GLU	2.2
26	YD	183	ARG	2.2
30	RH	24	VAL	2.2
34	YP	15	ARG	2.2
34	YP	19	VAL	2.2
39	YU	7	GLY	2.2
44	YZ	82	ARG	2.2
53	R8	22	VAL	2.2
4	XD	51	PRO	2.2
20	XT	71	THR	2.2
45	Y0	58	THR	2.2
5	QE	45	PHE	2.2
1	QA	1205	U	2.2
10	XJ	14	LYS	2.2
24	YA	1931	U	2.2
36	RR	9	LYS	2.2
44	RZ	17	ALA	2.2
26	RD	253	GLN	2.2
3	QC	193	TYR	2.2
8	QH	58	TYR	2.2

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Mol	Chain	Res	Type	RSRZ
14	QN	34	TYR	2.2
17	QQ	32	TYR	2.2
19	XS	4	SER	2.2
4	XD	21	LEU	2.2
4	XD	135	LEU	2.2
6	XF	6	VAL	2.2
12	XL	93	LEU	2.2
13	QM	71	ARG	2.2
24	RA	2694	G	2.2
24	YA	226	G	2.2
24	YA	1436	G	2.2
24	YA	2151	G	2.2
13	XM	15	VAL	2.2
26	YD	239	ARG	2.2
30	YH	3	ARG	2.2
34	RP	49	ARG	2.2
26	YD	237	GLU	2.2
35	YQ	27	VAL	2.2
42	YX	52	VAL	2.2
46	R1	6	GLU	2.2
46	R1	14	VAL	2.2
21	XU	11	GLY	2.2
40	YV	48	GLY	2.2
43	RY	41	GLY	2.2
53	Y8	54	GLU	2.2
1	QA	1346	A	2.2
1	XA	1000	A	2.2
24	RA	2602	A	2.2
24	YA	1969	A	2.2
27	YE	56	PRO	2.2
10	QJ	67	THR	2.2
26	RD	259	THR	2.2
7	QG	26	PHE	2.2
1	QA	106	C	2.2
1	QA	201	C	2.2
1	XA	564	C	2.2
13	QM	92	HIS	2.2
26	YD	39	LYS	2.2
31	YI	2	LYS	2.2
34	RP	64	LYS	2.2
41	RW	93	ALA	2.2
15	XO	54	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
28	RF	72	ARG	2.2
43	RY	31	LEU	2.2
53	Y8	62	LEU	2.2
5	XE	105	VAL	2.2
13	XM	45	VAL	2.2
4	XD	80	GLU	2.2
26	RD	235	GLY	2.2
2	XB	58	ILE	2.2
31	RI	4	ILE	2.2
45	Y0	83	PRO	2.2
1	QA	772	U	2.2
1	XA	65	U	2.2
9	XI	101	PHE	2.2
24	RA	2696	U	2.2
24	YA	1130	U	2.2
24	YA	1777	U	2.2
24	YA	2726	U	2.2
27	YE	118	LYS	2.2
32	RN	104	LYS	2.2
4	QD	177	ASP	2.2
15	XO	59	MET	2.2
43	RY	16	ALA	2.2
1	QA	1511	G	2.2
1	XA	524	G	2.2
1	XA	1156	G	2.2
1	XA	1184	G	2.2
1	XA	1288	A	2.2
7	QG	38	LEU	2.2
24	RA	1073	A	2.2
24	RA	2182	G	2.2
24	RA	2334	G	2.2
24	YA	2032	G	2.2
24	YA	2110	G	2.2
4	XD	131	ARG	2.2
28	RF	74	ARG	2.2
28	YF	168	ARG	2.2
36	RR	71	GLN	2.2
36	YR	6	SER	2.2
39	RU	59	ARG	2.2
44	YZ	81	ARG	2.2
9	QI	125	TYR	2.2
33	RO	57	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
34	RP	19	VAL	2.2
54	Y9	23	VAL	2.2
1	QA	58	C	2.2
1	XA	1129	C	2.2
10	XJ	96	ILE	2.2
24	YA	2700	C	2.2
14	QN	16	PHE	2.2
29	YG	164	GLU	2.2
37	RS	87	PHE	2.2
27	YE	107	THR	2.2
35	YQ	18	LYS	2.2
38	YT	104	ASN	2.2
20	QT	20	LEU	2.2
26	RD	215	LEU	2.2
36	YR	79	LEU	2.2
39	YU	115	ALA	2.1
43	RY	69	ALA	2.1
1	QA	1212	U	2.1
1	QA	1510	U	2.1
13	QM	99	ARG	2.1
24	RA	1101	U	2.1
24	YA	504	U	2.1
24	YA	1249	U	2.1
26	RD	266	SER	2.1
39	RU	36	ARG	2.1
46	Y1	17	SER	2.1
6	QF	4	TYR	2.1
26	RD	106	ILE	2.1
35	RQ	9	TYR	2.1
40	RV	14	VAL	2.1
43	RY	15	VAL	2.1
26	YD	241	PRO	2.1
28	RF	85	GLY	2.1
36	YR	7	GLY	2.1
42	YX	28	PHE	2.1
5	QE	92	LYS	2.1
34	YP	52	GLU	2.1
46	Y1	10	LYS	2.1
47	Y2	20	GLU	2.1
54	Y9	2	LYS	2.1
52	R7	15	THR	2.1
1	QA	397	A	2.1

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Mol	Chain	Res	Type	RSRZ
24	RA	654(U)	A	2.1
1	QA	1486	G	2.1
1	XA	230	G	2.1
1	XA	631	G	2.1
1	XA	855	G	2.1
24	RA	2270	G	2.1
24	YA	1628	G	2.1
24	YA	2159	G	2.1
41	RW	36	LEU	2.1
9	XI	122	ALA	2.1
26	RD	217	ARG	2.1
34	RP	16	ARG	2.1
1	XA	103	C	2.1
1	XA	137	C	2.1
15	XO	51	HIS	2.1
23	XX	3	C	2.1
24	RA	531	C	2.1
24	RA	587	C	2.1
24	RA	2896	C	2.1
24	YA	2571	C	2.1
34	YP	47	ASP	2.1
43	RY	68	HIS	2.1
2	QB	97	TRP	2.1
13	XM	74	VAL	2.1
26	YD	174	ILE	2.1
2	XB	139	LYS	2.1
27	YE	203	LYS	2.1
44	YZ	38	TYR	2.1
53	Y8	36	LYS	2.1
8	XH	89	PRO	2.1
21	XU	23	PRO	2.1
26	YD	11	PRO	2.1
35	YQ	108	GLY	2.1
1	XA	1052	U	2.1
24	RA	2102	U	2.1
34	RP	62	LEU	2.1
40	YV	40	LEU	2.1
41	RW	51	LEU	2.1
11	XK	91	ARG	2.1
20	QT	52	ALA	2.1
27	YE	114	ALA	2.1
34	YP	16	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
38	YT	97	ALA	2.1
30	YH	84	SER	2.1
38	YT	52	ILE	2.1
1	XA	101	A	2.1
11	XK	125	PHE	2.1
27	YE	7	VAL	2.1
17	QQ	83	ASP	2.1
43	RY	28	LYS	2.1
24	RA	2310	A	2.1
24	YA	782	A	2.1
4	XD	138	TYR	2.1
12	XL	14	GLY	2.1
26	YD	223	GLY	2.1
29	RG	134	GLY	2.1
19	XS	42	PRO	2.1
4	XD	78	LEU	2.1
28	YF	32	LEU	2.1
36	YR	51	LEU	2.1
38	YT	114	LEU	2.1
51	Y6	11	LEU	2.1
1	QA	769	G	2.1
13	XM	116	THR	2.1
21	QU	8	THR	2.1
24	RA	932	G	2.1
24	RA	2123	G	2.1
24	RA	2318	G	2.1
35	YQ	75	THR	2.1
1	QA	1369	C	2.1
22	QV	1	C	2.1
24	RA	985	C	2.1
24	RA	2136	C	2.1
24	YA	2452	C	2.1
43	RY	65	ALA	2.1
46	Y1	64	ALA	2.1
27	RE	197	ILE	2.1
36	RR	6	SER	2.1
39	RU	65	ILE	2.1
3	XC	45	LYS	2.1
12	XL	46	LYS	2.1
51	Y6	53	LYS	2.1
1	XA	1506	U	2.1
22	QV	48	U	2.1

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Mol	Chain	Res	Type	RSRZ
24	RA	810	U	2.1
47	R2	63	VAL	2.1
30	RH	111	HIS	2.1
48	Y3	52	HIS	2.1
2	XB	31	TYR	2.1
4	XD	2	GLY	2.1
9	QI	47	LEU	2.1
14	QN	21	TYR	2.1
17	QQ	74	LEU	2.1
28	RF	181	LEU	2.1
28	YF	184	TYR	2.1
39	YU	61	TRP	2.1
45	R0	6	GLY	2.1
16	QP	5	ARG	2.1
1	QA	134	A	2.1
17	QQ	37	LYS	2.1
20	QT	66	ALA	2.1
22	XV	52	A	2.1
24	RA	653	A	2.1
24	RA	2412	A	2.1
24	YA	872	A	2.1
33	RO	39	ILE	2.1
38	RT	102	ILE	2.1
4	XD	46	LYS	2.1
26	RD	39	LYS	2.1
43	YY	70	SER	2.1
44	YZ	165	VAL	2.1
39	RU	27	LEU	2.1
1	QA	749	C	2.1
1	QA	1066	C	2.1
1	QA	1320	C	2.1
1	XA	422	C	2.1
1	XA	824	C	2.1
1	QA	771	G	2.1
1	QA	1521	G	2.1
1	XA	42	G	2.1
1	XA	111	G	2.1
4	QD	68	TYR	2.1
24	RA	1008	C	2.1
24	RA	1765	C	2.1
24	YA	791	C	2.1
24	RA	1443	G	2.1

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Mol	Chain	Res	Type	RSRZ
24	RA	1807	G	2.1
16	QP	66	PRO	2.1
16	XP	23	ASP	2.1
24	RA	2405	G	2.1
24	YA	274	G	2.1
24	YA	2706	G	2.1
26	RD	110	GLY	2.1
54	R9	21	GLY	2.1
17	QQ	48	GLU	2.1
31	RI	117	GLU	2.1
26	RD	157	ARG	2.1
1	XA	118	U	2.1
2	XB	201	ILE	2.1
2	XB	214	ILE	2.1
10	QJ	14	LYS	2.1
17	XQ	100	LYS	2.1
24	RA	1188	U	2.1
24	RA	2150	U	2.1
24	RA	2167	U	2.1
51	Y6	33	LYS	2.1
9	XI	126	SER	2.1
31	YI	94	ALA	2.1
8	QH	26	VAL	2.1
10	XJ	49	VAL	2.1
10	XJ	88	LEU	2.1
33	RO	62	VAL	2.1
33	YO	122	LEU	2.1
34	RP	45	LEU	2.1
39	YU	60	LEU	2.1
43	YY	72	VAL	2.1
1	QA	767	A	2.0
1	XA	653	A	2.0
10	QJ	56	HIS	2.0
16	QP	30	GLY	2.0
4	XD	172	PRO	2.0
12	QL	31	PRO	2.0
24	RA	229	A	2.0
24	RA	677	A	2.0
24	RA	2497	A	2.0
24	YA	276	A	2.0
24	YA	764	A	2.0
24	YA	1057	A	2.0

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Mol	Chain	Res	Type	RSRZ
24	YA	1444(A)	A	2.0
26	RD	55	GLY	2.0
28	RF	75	HIS	2.0
46	Y1	43	TYR	2.0
2	QB	195	ASP	2.0
4	QD	80	GLU	2.0
4	QD	163	GLU	2.0
4	XD	150	GLU	2.0
26	YD	40	THR	2.0
28	RF	27	GLU	2.0
34	YP	79	ARG	2.0
43	RY	23	ARG	2.0
10	QJ	6	ILE	2.0
16	QP	19	ILE	2.0
19	XS	32	LYS	2.0
33	YO	39	ILE	2.0
31	YI	115	ALA	2.0
34	YP	89	ALA	2.0
38	RT	106	SER	2.0
1	QA	322	C	2.0
1	XA	578	C	2.0
5	XE	12	LEU	2.0
12	QL	93	LEU	2.0
17	QQ	76	LEU	2.0
24	RA	961	C	2.0
24	RA	2606	C	2.0
24	YA	1638	C	2.0
24	YA	1640	C	2.0
32	YN	107	LEU	2.0
44	RZ	70	LEU	2.0
53	Y8	23	VAL	2.0
20	QT	9	ASN	2.0
1	QA	887	G	2.0
1	QA	966	G	2.0
1	XA	331	G	2.0
24	RA	979	G	2.0
24	RA	1559	G	2.0
24	RA	2251	G	2.0
24	YA	739	G	2.0
24	YA	1903	G	2.0
24	YA	2802	G	2.0
1	QA	486	U	2.0

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Mol	Chain	Res	Type	RSRZ
1	QA	1196	U	2.0
24	RA	1060	U	2.0
24	RA	2406	U	2.0
24	YA	694	U	2.0
24	YA	868	U	2.0
9	XI	30	GLY	2.0
7	QG	85	TYR	2.0
2	XB	200	ILE	2.0
4	QD	46	LYS	2.0
4	XD	10	ARG	2.0
10	XJ	6	ILE	2.0
13	XM	111	LYS	2.0
32	YN	37	LYS	2.0
35	YQ	80	GLU	2.0
43	YY	107	ASP	2.0
44	RZ	178	GLU	2.0
45	Y0	56	ASP	2.0
12	QL	68	ALA	2.0
27	YE	122	PHE	2.0
19	XS	16	LEU	2.0
47	R2	60	LEU	2.0
2	QB	239	VAL	2.0
3	XC	151	VAL	2.0
4	QD	92	VAL	2.0
24	RA	567	A	2.0
24	RA	866	A	2.0
24	YA	196	A	2.0
24	YA	1378	A	2.0
4	QD	154	ASN	2.0
26	RD	44	ASN	2.0
33	RO	82	ASN	2.0
8	XH	125	ARG	2.0
19	XS	72	GLY	2.0
26	YD	124	PRO	2.0
29	RG	2	PRO	2.0
30	RH	39	PRO	2.0
30	RH	128	PRO	2.0
52	Y7	41	ARG	2.0
1	QA	796	C	2.0
8	QH	34	GLU	2.0
24	YA	961	C	2.0
27	RE	182	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
35	RQ	125	LEU	2.0
36	RR	10	LEU	2.0
36	YR	115	GLU	2.0
43	YY	64	GLU	2.0
12	QL	92	ASP	2.0
1	XA	863	U	2.0
24	RA	1535	U	2.0
24	RA	2808	U	2.0
6	QF	88	VAL	2.0
15	QO	60	VAL	2.0
28	RF	154	VAL	2.0
28	YF	36	VAL	2.0
32	RN	9	VAL	2.0
33	RO	38	VAL	2.0
44	RZ	180	VAL	2.0
44	YZ	180	VAL	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3419	1/1	-0.04	0.27	90,90,90,90	0
55	MG	RD	301	1/1	0.01	0.31	89,89,89,89	0
55	MG	QA	1607	1/1	0.01	0.16	116,116,116,116	0
55	MG	YA	3236	1/1	0.07	0.30	73,73,73,73	0
55	MG	RA	3284	1/1	0.09	0.35	73,73,73,73	0
55	MG	QA	1626	1/1	0.13	0.18	88,88,88,88	0
55	MG	RA	3057	1/1	0.13	0.33	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3316	1/1	0.15	0.29	69,69,69,69	0
55	MG	RA	3182	1/1	0.15	0.26	80,80,80,80	0
55	MG	YA	3014	1/1	0.17	0.24	82,82,82,82	0
55	MG	RA	3229	1/1	0.17	0.18	114,114,114,114	0
55	MG	RA	3228	1/1	0.17	0.26	81,81,81,81	0
55	MG	RA	3141	1/1	0.18	0.21	111,111,111,111	0
55	MG	YA	3438	1/1	0.19	0.38	95,95,95,95	0
55	MG	RA	3254	1/1	0.20	0.20	94,94,94,94	0
55	MG	RA	3211	1/1	0.21	0.34	83,83,83,83	0
55	MG	RA	3227	1/1	0.21	0.19	101,101,101,101	0
55	MG	YA	3290	1/1	0.21	0.35	91,91,91,91	0
55	MG	YA	3408	1/1	0.21	0.29	75,75,75,75	0
55	MG	XA	1653	1/1	0.21	0.16	86,86,86,86	0
55	MG	XA	1654	1/1	0.21	0.28	114,114,114,114	0
55	MG	YA	3410	1/1	0.22	0.20	82,82,82,82	0
55	MG	YA	3257	1/1	0.23	0.55	94,94,94,94	0
55	MG	YA	3183	1/1	0.23	0.37	95,95,95,95	0
55	MG	RA	3234	1/1	0.24	0.32	74,74,74,74	0
55	MG	YA	3233	1/1	0.27	0.27	85,85,85,85	0
55	MG	QA	1645	1/1	0.27	0.22	87,87,87,87	0
55	MG	YA	3182	1/1	0.28	0.25	76,76,76,76	0
55	MG	XA	1643	1/1	0.28	0.19	102,102,102,102	0
55	MG	YA	3205	1/1	0.29	0.25	70,70,70,70	0
55	MG	YA	3360	1/1	0.29	0.10	78,78,78,78	0
55	MG	RA	3285	1/1	0.29	0.23	79,79,79,79	0
55	MG	RA	3380	1/1	0.30	0.21	57,57,57,57	0
55	MG	YA	3309	1/1	0.31	0.36	87,87,87,87	0
55	MG	RA	3349	1/1	0.31	0.45	93,93,93,93	0
55	MG	RA	3344	1/1	0.31	0.28	86,86,86,86	0
55	MG	YA	3341	1/1	0.32	0.25	90,90,90,90	0
55	MG	YA	3301	1/1	0.32	0.27	70,70,70,70	0
55	MG	RA	3268	1/1	0.33	0.19	93,93,93,93	0
55	MG	RA	3222	1/1	0.33	0.41	68,68,68,68	0
55	MG	RA	3264	1/1	0.33	0.21	79,79,79,79	0
55	MG	YD	302	1/1	0.33	0.40	99,99,99,99	0
55	MG	RA	3363	1/1	0.34	0.33	87,87,87,87	0
55	MG	YA	3170	1/1	0.34	0.20	104,104,104,104	0
55	MG	RA	3001	1/1	0.34	0.16	82,82,82,82	0
55	MG	YA	3367	1/1	0.35	0.17	72,72,72,72	0
55	MG	YA	3449	1/1	0.35	0.28	47,47,47,47	0
55	MG	RA	3249	1/1	0.35	0.49	102,102,102,102	0
55	MG	XA	1659	1/1	0.36	0.16	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3424	1/1	0.37	0.47	88,88,88,88	0
55	MG	RA	3356	1/1	0.37	0.13	62,62,62,62	0
55	MG	RA	3325	1/1	0.38	0.31	105,105,105,105	0
55	MG	QA	1661	1/1	0.39	0.29	74,74,74,74	0
55	MG	RA	3327	1/1	0.39	0.40	87,87,87,87	0
55	MG	RA	3251	1/1	0.39	0.57	84,84,84,84	0
55	MG	XA	1646	1/1	0.39	0.33	82,82,82,82	0
55	MG	RA	3330	1/1	0.40	0.18	70,70,70,70	0
55	MG	YA	3218	1/1	0.40	0.30	82,82,82,82	0
55	MG	YA	3169	1/1	0.40	0.19	79,79,79,79	0
55	MG	RA	3006	1/1	0.40	0.54	103,103,103,103	0
55	MG	RA	3062	1/1	0.40	0.38	72,72,72,72	0
55	MG	YA	3001	1/1	0.40	0.29	82,82,82,82	0
55	MG	RA	3308	1/1	0.41	0.33	73,73,73,73	0
55	MG	QA	1635	1/1	0.41	0.49	93,93,93,93	0
55	MG	YA	3409	1/1	0.41	0.54	88,88,88,88	0
55	MG	YA	3011	1/1	0.42	0.50	71,71,71,71	0
55	MG	YA	3407	1/1	0.42	0.18	62,62,62,62	0
55	MG	RB	207	1/1	0.42	0.23	80,80,80,80	0
55	MG	RA	3292	1/1	0.42	0.28	98,98,98,98	0
55	MG	YA	3297	1/1	0.42	0.58	88,88,88,88	0
55	MG	RA	3245	1/1	0.43	0.24	82,82,82,82	0
55	MG	XA	1603	1/1	0.43	0.18	70,70,70,70	0
55	MG	RA	3376	1/1	0.43	0.24	47,47,47,47	0
55	MG	RA	3248	1/1	0.43	0.15	91,91,91,91	0
55	MG	QE	201	1/1	0.43	0.31	85,85,85,85	0
55	MG	YB	207	1/1	0.44	0.21	76,76,76,76	0
55	MG	YA	3357	1/1	0.44	0.33	76,76,76,76	0
55	MG	RA	3331	1/1	0.45	0.15	101,101,101,101	0
55	MG	YA	3368	1/1	0.45	0.24	53,53,53,53	0
55	MG	RA	3279	1/1	0.45	0.23	85,85,85,85	0
55	MG	RE	301	1/1	0.46	0.37	84,84,84,84	0
55	MG	RA	3203	1/1	0.46	0.33	105,105,105,105	0
55	MG	YA	3335	1/1	0.46	0.30	82,82,82,82	0
55	MG	RA	3193	1/1	0.46	0.15	84,84,84,84	0
55	MG	YA	3405	1/1	0.46	0.23	86,86,86,86	0
55	MG	RA	3109	1/1	0.47	0.15	85,85,85,85	0
55	MG	RA	3213	1/1	0.47	0.27	94,94,94,94	0
55	MG	RA	3204	1/1	0.47	0.34	113,113,113,113	0
55	MG	RA	3209	1/1	0.47	0.38	83,83,83,83	0
55	MG	QA	1621	1/1	0.48	0.13	87,87,87,87	0
55	MG	YA	3002	1/1	0.49	0.17	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3416	1/1	0.49	0.27	80,80,80,80	0
55	MG	RA	3165	1/1	0.49	0.37	74,74,74,74	0
55	MG	YA	3324	1/1	0.49	0.20	90,90,90,90	0
55	MG	RA	3225	1/1	0.49	0.39	59,59,59,59	0
55	MG	YA	3057	1/1	0.49	0.28	51,51,51,51	0
55	MG	YA	3344	1/1	0.49	0.22	88,88,88,88	0
55	MG	RA	3240	1/1	0.49	0.36	58,58,58,58	0
55	MG	RA	3206	1/1	0.50	0.34	93,93,93,93	0
55	MG	RB	209	1/1	0.50	0.22	105,105,105,105	0
55	MG	YA	3039	1/1	0.50	0.34	15,15,15,15	0
55	MG	RA	3256	1/1	0.50	0.14	69,69,69,69	0
55	MG	YA	3440	1/1	0.50	0.43	68,68,68,68	0
55	MG	YA	3211	1/1	0.50	0.44	78,78,78,78	0
55	MG	RA	3295	1/1	0.50	0.29	97,97,97,97	0
55	MG	YA	3307	1/1	0.50	0.25	87,87,87,87	0
55	MG	QA	1659	1/1	0.51	0.30	72,72,72,72	0
55	MG	YA	3187	1/1	0.51	0.34	94,94,94,94	0
55	MG	RA	3134	1/1	0.51	0.29	62,62,62,62	0
55	MG	QH	201	1/1	0.51	0.30	84,84,84,84	0
55	MG	RA	3210	1/1	0.51	0.19	78,78,78,78	0
55	MG	RA	3255	1/1	0.51	0.36	90,90,90,90	0
55	MG	RA	3197	1/1	0.51	0.26	59,59,59,59	0
55	MG	YA	3253	1/1	0.51	0.29	59,59,59,59	0
55	MG	RA	3199	1/1	0.51	0.31	89,89,89,89	0
55	MG	YA	3263	1/1	0.51	0.28	79,79,79,79	0
55	MG	RA	3265	1/1	0.51	0.25	93,93,93,93	0
55	MG	RA	3150	1/1	0.51	0.14	106,106,106,106	0
55	MG	YA	3282	1/1	0.52	0.29	75,75,75,75	0
55	MG	YA	3164	1/1	0.52	0.22	52,52,52,52	0
55	MG	YA	3397	1/1	0.52	0.30	78,78,78,78	0
55	MG	RA	3381	1/1	0.52	0.22	80,80,80,80	0
55	MG	RA	3370	1/1	0.53	0.13	69,69,69,69	0
55	MG	QA	1640	1/1	0.53	0.23	92,92,92,92	0
55	MG	YA	3189	1/1	0.53	0.23	81,81,81,81	0
55	MG	RA	3171	1/1	0.53	0.17	79,79,79,79	0
55	MG	RA	3063	1/1	0.53	0.18	71,71,71,71	0
55	MG	YA	3215	1/1	0.53	0.25	67,67,67,67	0
55	MG	YA	3264	1/1	0.53	0.69	82,82,82,82	0
55	MG	YA	3426	1/1	0.54	0.23	85,85,85,85	0
55	MG	YA	3198	1/1	0.54	0.23	64,64,64,64	0
55	MG	RA	3030	1/1	0.54	0.17	72,72,72,72	0
55	MG	RA	3198	1/1	0.54	0.22	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3361	1/1	0.54	0.20	84,84,84,84	0
55	MG	RA	3246	1/1	0.54	0.19	98,98,98,98	0
55	MG	YA	3199	1/1	0.55	0.24	78,78,78,78	0
55	MG	RA	3205	1/1	0.55	0.27	66,66,66,66	0
55	MG	RA	3366	1/1	0.55	0.26	90,90,90,90	0
55	MG	YA	3238	1/1	0.55	0.43	83,83,83,83	0
55	MG	YA	3412	1/1	0.55	0.11	91,91,91,91	0
55	MG	RA	3252	1/1	0.55	0.50	85,85,85,85	0
55	MG	YA	3406	1/1	0.55	0.39	78,78,78,78	0
55	MG	YA	3062	1/1	0.56	0.49	72,72,72,72	0
55	MG	YA	3421	1/1	0.56	0.23	89,89,89,89	0
55	MG	YA	3259	1/1	0.56	0.21	61,61,61,61	0
55	MG	RA	3247	1/1	0.57	0.32	78,78,78,78	0
55	MG	RA	3191	1/1	0.57	0.31	39,39,39,39	0
55	MG	RA	3081	1/1	0.57	0.23	95,95,95,95	0
55	MG	XA	1605	1/1	0.57	0.26	74,74,74,74	0
55	MG	YA	3214	1/1	0.57	0.14	60,60,60,60	0
55	MG	XA	1608	1/1	0.57	0.21	93,93,93,93	0
55	MG	YA	3272	1/1	0.57	0.14	91,91,91,91	0
55	MG	YA	3443	1/1	0.57	0.22	66,66,66,66	0
55	MG	RA	3201	1/1	0.57	0.32	60,60,60,60	0
55	MG	RA	3289	1/1	0.57	0.20	114,114,114,114	0
55	MG	QA	1612	1/1	0.57	0.23	113,113,113,113	0
55	MG	RA	3111	1/1	0.58	0.12	82,82,82,82	0
55	MG	YA	3273	1/1	0.58	0.23	56,56,56,56	0
55	MG	RB	201	1/1	0.58	0.40	86,86,86,86	0
55	MG	YA	3347	1/1	0.58	0.25	74,74,74,74	0
55	MG	XA	1607	1/1	0.58	0.40	67,67,67,67	0
55	MG	RA	3219	1/1	0.58	0.18	83,83,83,83	0
55	MG	YA	3009	1/1	0.58	0.32	73,73,73,73	0
55	MG	RA	3324	1/1	0.58	0.26	82,82,82,82	0
55	MG	RA	3119	1/1	0.58	0.18	73,73,73,73	0
55	MG	YA	3384	1/1	0.58	0.18	69,69,69,69	0
55	MG	YA	3310	1/1	0.58	0.20	63,63,63,63	0
55	MG	YA	3401	1/1	0.58	0.22	72,72,72,72	0
55	MG	YA	3315	1/1	0.58	0.23	100,100,100,100	0
55	MG	YA	3318	1/1	0.58	0.30	51,51,51,51	0
55	MG	QA	1660	1/1	0.58	0.29	84,84,84,84	0
55	MG	RB	205	1/1	0.59	0.34	83,83,83,83	0
55	MG	RA	3359	1/1	0.59	0.57	97,97,97,97	0
55	MG	YA	3291	1/1	0.59	0.30	50,50,50,50	0
55	MG	RA	3215	1/1	0.59	0.12	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3351	1/1	0.59	0.21	68,68,68,68	0
55	MG	YA	3442	1/1	0.59	0.25	101,101,101,101	0
55	MG	YA	3305	1/1	0.59	0.28	74,74,74,74	0
55	MG	YA	3389	1/1	0.59	0.34	77,77,77,77	0
55	MG	YB	206	1/1	0.59	0.17	105,105,105,105	0
55	MG	XA	1633	1/1	0.59	0.24	65,65,65,65	0
55	MG	RA	3008	1/1	0.59	0.21	34,34,34,34	0
55	MG	YA	3147	1/1	0.60	0.13	89,89,89,89	0
55	MG	RA	3117	1/1	0.60	0.31	70,70,70,70	0
55	MG	RA	3297	1/1	0.60	0.50	100,100,100,100	0
55	MG	XA	1606	1/1	0.60	0.15	103,103,103,103	0
55	MG	RB	204	1/1	0.60	0.20	90,90,90,90	0
55	MG	RA	3026	1/1	0.60	0.35	58,58,58,58	0
55	MG	XA	1609	1/1	0.60	0.15	89,89,89,89	0
55	MG	YA	3239	1/1	0.60	0.29	62,62,62,62	0
55	MG	RA	3216	1/1	0.60	0.25	75,75,75,75	0
55	MG	RA	3003	1/1	0.60	0.34	69,69,69,69	0
55	MG	RA	3350	1/1	0.60	0.13	59,59,59,59	0
55	MG	RA	3269	1/1	0.60	0.12	83,83,83,83	0
55	MG	RA	3343	1/1	0.61	0.21	104,104,104,104	0
55	MG	RA	3194	1/1	0.61	0.21	80,80,80,80	0
55	MG	YA	3319	1/1	0.61	0.41	64,64,64,64	0
55	MG	YA	3274	1/1	0.61	0.37	81,81,81,81	0
55	MG	YA	3326	1/1	0.61	0.41	64,64,64,64	0
55	MG	YA	3363	1/1	0.61	0.26	85,85,85,85	0
55	MG	YA	3136	1/1	0.61	0.36	73,73,73,73	0
55	MG	YA	3313	1/1	0.61	0.23	97,97,97,97	0
55	MG	RA	3212	1/1	0.62	0.23	36,36,36,36	0
55	MG	RA	3195	1/1	0.62	0.19	68,68,68,68	0
55	MG	RA	3273	1/1	0.62	0.22	85,85,85,85	0
55	MG	YA	3381	1/1	0.62	0.14	69,69,69,69	0
55	MG	QA	1613	1/1	0.62	0.20	104,104,104,104	0
55	MG	YA	3311	1/1	0.62	0.43	54,54,54,54	0
55	MG	YA	3260	1/1	0.62	0.22	76,76,76,76	0
55	MG	RA	3089	1/1	0.63	0.18	102,102,102,102	0
55	MG	RA	3333	1/1	0.63	0.24	51,51,51,51	0
55	MG	YA	3329	1/1	0.63	0.13	87,87,87,87	0
55	MG	YA	3331	1/1	0.63	0.29	58,58,58,58	0
55	MG	RA	3335	1/1	0.63	0.16	86,86,86,86	0
55	MG	RA	3367	1/1	0.63	0.32	91,91,91,91	0
55	MG	YA	3100	1/1	0.63	0.43	50,50,50,50	0
55	MG	YA	3188	1/1	0.63	0.26	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3117	1/1	0.63	0.19	61,61,61,61	0
55	MG	YA	3280	1/1	0.63	0.47	82,82,82,82	0
55	MG	RA	3341	1/1	0.63	0.58	66,66,66,66	0
55	MG	RA	3007	1/1	0.63	0.34	86,86,86,86	0
55	MG	XA	1652	1/1	0.63	0.33	96,96,96,96	0
55	MG	XA	1660	1/1	0.64	0.24	71,71,71,71	0
55	MG	YA	3064	1/1	0.64	0.26	45,45,45,45	0
55	MG	YA	3222	1/1	0.64	0.34	47,47,47,47	0
55	MG	RA	3282	1/1	0.64	0.30	57,57,57,57	0
55	MG	RA	3339	1/1	0.64	0.34	84,84,84,84	0
55	MG	RA	3214	1/1	0.64	0.32	87,87,87,87	0
55	MG	YA	3144	1/1	0.64	0.14	66,66,66,66	0
55	MG	RA	3183	1/1	0.64	0.33	84,84,84,84	0
55	MG	RA	3278	1/1	0.64	0.24	89,89,89,89	0
55	MG	RA	3162	1/1	0.64	0.12	89,89,89,89	0
55	MG	XA	1610	1/1	0.64	0.21	56,56,56,56	0
55	MG	YA	3302	1/1	0.64	0.11	80,80,80,80	0
55	MG	YA	3079	1/1	0.65	0.31	51,51,51,51	0
55	MG	RA	3267	1/1	0.65	0.27	111,111,111,111	0
55	MG	XA	1630	1/1	0.65	0.10	101,101,101,101	0
55	MG	YA	3225	1/1	0.65	0.37	25,25,25,25	0
55	MG	YA	3372	1/1	0.65	0.36	77,77,77,77	0
55	MG	YA	3262	1/1	0.65	0.15	74,74,74,74	0
55	MG	YA	3181	1/1	0.65	0.77	78,78,78,78	0
55	MG	YA	3453	1/1	0.65	0.22	59,59,59,59	0
55	MG	YB	204	1/1	0.65	0.18	26,26,26,26	0
55	MG	XA	1632	1/1	0.65	0.14	93,93,93,93	0
55	MG	QA	1647	1/1	0.65	0.24	107,107,107,107	0
55	MG	RA	3132	1/1	0.65	0.17	72,72,72,72	0
55	MG	RA	3352	1/1	0.66	0.28	24,24,24,24	0
55	MG	QA	1628	1/1	0.66	0.10	88,88,88,88	0
55	MG	RA	3085	1/1	0.66	0.23	49,49,49,49	0
55	MG	YA	3308	1/1	0.66	0.34	68,68,68,68	0
55	MG	RA	3345	1/1	0.66	0.22	88,88,88,88	0
55	MG	YA	3387	1/1	0.66	0.35	67,67,67,67	0
55	MG	RA	3326	1/1	0.66	0.14	72,72,72,72	0
55	MG	YA	3392	1/1	0.66	0.32	94,94,94,94	0
55	MG	YA	3342	1/1	0.66	0.23	73,73,73,73	0
55	MG	YA	3083	1/1	0.66	0.17	49,49,49,49	0
55	MG	YA	3312	1/1	0.66	0.58	92,92,92,92	0
55	MG	YA	3351	1/1	0.66	0.38	72,72,72,72	0
55	MG	RA	3224	1/1	0.66	0.18	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3104	1/1	0.66	0.24	52,52,52,52	0
55	MG	QA	1664	1/1	0.66	0.26	102,102,102,102	0
55	MG	RA	3375	1/1	0.66	0.34	74,74,74,74	0
55	MG	XA	1656	1/1	0.67	0.17	89,89,89,89	0
55	MG	YA	3194	1/1	0.67	0.22	85,85,85,85	0
55	MG	RA	3113	1/1	0.67	0.19	67,67,67,67	0
55	MG	YA	3173	1/1	0.67	0.23	71,71,71,71	0
55	MG	RA	3192	1/1	0.67	0.31	48,48,48,48	0
55	MG	RA	3275	1/1	0.67	0.20	58,58,58,58	0
55	MG	YA	3242	1/1	0.67	0.34	86,86,86,86	0
55	MG	YA	3251	1/1	0.67	0.30	75,75,75,75	0
55	MG	RA	3077	1/1	0.67	0.24	64,64,64,64	0
55	MG	YA	3285	1/1	0.67	0.41	74,74,74,74	0
55	MG	RA	3319	1/1	0.67	0.24	82,82,82,82	0
55	MG	RA	3187	1/1	0.67	0.38	94,94,94,94	0
55	MG	YA	3417	1/1	0.68	0.12	71,71,71,71	0
55	MG	YA	3339	1/1	0.68	0.41	78,78,78,78	0
55	MG	YA	3254	1/1	0.68	0.44	60,60,60,60	0
55	MG	YA	3423	1/1	0.68	0.19	78,78,78,78	0
55	MG	RA	3239	1/1	0.68	0.22	86,86,86,86	0
55	MG	YA	3197	1/1	0.68	0.16	59,59,59,59	0
55	MG	YA	3022	1/1	0.68	0.28	42,42,42,42	0
55	MG	RA	3270	1/1	0.68	0.55	87,87,87,87	0
55	MG	RA	3056	1/1	0.68	0.24	29,29,29,29	0
55	MG	XA	1647	1/1	0.68	0.20	101,101,101,101	0
55	MG	YA	3323	1/1	0.68	0.34	55,55,55,55	0
55	MG	RA	3163	1/1	0.68	0.11	59,59,59,59	0
55	MG	YA	3306	1/1	0.68	0.22	87,87,87,87	0
55	MG	RA	3223	1/1	0.68	0.28	80,80,80,80	0
55	MG	YA	3252	1/1	0.68	0.25	66,66,66,66	0
55	MG	RA	3362	1/1	0.68	0.21	64,64,64,64	0
55	MG	YQ	202	1/1	0.68	0.17	79,79,79,79	0
55	MG	YA	3015	1/1	0.69	0.20	73,73,73,73	0
55	MG	YA	3266	1/1	0.69	0.61	87,87,87,87	0
55	MG	YA	3348	1/1	0.69	0.21	72,72,72,72	0
55	MG	YA	3267	1/1	0.69	0.28	77,77,77,77	0
55	MG	YA	3268	1/1	0.69	0.17	78,78,78,78	0
55	MG	YA	3358	1/1	0.69	0.26	66,66,66,66	0
55	MG	QA	1663	1/1	0.69	0.10	104,104,104,104	0
55	MG	QA	1652	1/1	0.69	0.10	96,96,96,96	0
55	MG	YA	3045	1/1	0.69	0.58	63,63,63,63	0
55	MG	YA	3317	1/1	0.69	0.21	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3230	1/1	0.69	0.18	75,75,75,75	0
55	MG	YA	3246	1/1	0.69	0.33	76,76,76,76	0
55	MG	RA	3368	1/1	0.69	0.27	65,65,65,65	0
55	MG	QA	1666	1/1	0.69	0.25	78,78,78,78	0
55	MG	YA	3003	1/1	0.69	0.24	77,77,77,77	0
55	MG	RQ	201	1/1	0.69	0.32	97,97,97,97	0
55	MG	YA	3330	1/1	0.69	0.13	65,65,65,65	0
55	MG	YA	3010	1/1	0.69	0.23	52,52,52,52	0
55	MG	XA	1613	1/1	0.69	0.10	72,72,72,72	0
55	MG	YA	3224	1/1	0.69	0.19	51,51,51,51	0
55	MG	RA	3372	1/1	0.69	0.11	64,64,64,64	0
55	MG	YA	3226	1/1	0.69	0.16	21,21,21,21	0
55	MG	YA	3084	1/1	0.70	0.27	61,61,61,61	0
55	MG	RA	3260	1/1	0.70	0.36	89,89,89,89	0
55	MG	YA	3303	1/1	0.70	0.12	80,80,80,80	0
55	MG	RA	3342	1/1	0.70	0.14	49,49,49,49	0
55	MG	QA	1602	1/1	0.70	0.34	79,79,79,79	0
55	MG	RA	3166	1/1	0.70	0.11	88,88,88,88	0
55	MG	QA	1653	1/1	0.70	0.08	89,89,89,89	0
55	MG	RA	3346	1/1	0.70	0.29	74,74,74,74	0
55	MG	YA	3160	1/1	0.70	0.17	73,73,73,73	0
55	MG	RA	3177	1/1	0.70	0.22	89,89,89,89	0
55	MG	XA	1629	1/1	0.70	0.21	90,90,90,90	0
55	MG	YA	3234	1/1	0.70	0.16	79,79,79,79	0
55	MG	YA	3235	1/1	0.70	0.14	72,72,72,72	0
55	MG	QA	1603	1/1	0.70	0.27	64,64,64,64	0
55	MG	YA	3227	1/1	0.71	0.12	66,66,66,66	0
55	MG	RA	3099	1/1	0.71	0.40	70,70,70,70	0
55	MG	YA	3163	1/1	0.71	0.10	76,76,76,76	0
55	MG	RA	3208	1/1	0.71	0.28	74,74,74,74	0
55	MG	YA	3167	1/1	0.71	0.19	64,64,64,64	0
55	MG	YA	3322	1/1	0.71	0.37	78,78,78,78	0
55	MG	RA	3306	1/1	0.71	0.11	76,76,76,76	0
55	MG	RA	3015	1/1	0.71	0.28	77,77,77,77	0
55	MG	YA	3444	1/1	0.71	0.40	80,80,80,80	0
55	MG	YA	3016	1/1	0.71	0.18	78,78,78,78	0
55	MG	RA	3138	1/1	0.71	0.30	88,88,88,88	0
55	MG	YA	3024	1/1	0.71	0.36	38,38,38,38	0
55	MG	YA	3032	1/1	0.71	0.34	40,40,40,40	0
55	MG	RA	3172	1/1	0.71	0.36	76,76,76,76	0
55	MG	RA	3321	1/1	0.71	0.12	80,80,80,80	0
55	MG	RA	3139	1/1	0.71	0.09	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3129	1/1	0.72	0.14	65,65,65,65	0
55	MG	YA	3281	1/1	0.72	0.45	83,83,83,83	0
55	MG	YA	3398	1/1	0.72	0.26	75,75,75,75	0
55	MG	RA	3004	1/1	0.72	0.12	52,52,52,52	0
55	MG	YA	3143	1/1	0.72	0.24	59,59,59,59	0
55	MG	RA	3112	1/1	0.72	0.25	82,82,82,82	0
55	MG	YA	3300	1/1	0.73	0.36	71,71,71,71	0
55	MG	RA	3184	1/1	0.73	0.10	79,79,79,79	0
55	MG	YA	3232	1/1	0.73	0.32	67,67,67,67	0
55	MG	YA	3156	1/1	0.73	0.27	57,57,57,57	0
55	MG	RA	3253	1/1	0.73	0.28	81,81,81,81	0
55	MG	YA	3076	1/1	0.73	0.10	69,69,69,69	0
55	MG	RA	3153	1/1	0.73	0.28	78,78,78,78	0
55	MG	XA	1655	1/1	0.73	0.14	84,84,84,84	0
55	MG	YA	3391	1/1	0.73	0.09	75,75,75,75	0
55	MG	RA	3051	1/1	0.73	0.17	70,70,70,70	0
55	MG	YA	3395	1/1	0.73	0.17	56,56,56,56	0
55	MG	RA	3313	1/1	0.73	0.26	76,76,76,76	0
55	MG	RA	3136	1/1	0.73	0.19	78,78,78,78	0
55	MG	YA	3248	1/1	0.73	0.21	55,55,55,55	0
55	MG	YA	3028	1/1	0.73	0.24	56,56,56,56	0
55	MG	YA	3220	1/1	0.73	0.26	41,41,41,41	0
55	MG	XA	1635	1/1	0.73	0.18	83,83,83,83	0
55	MG	RA	3286	1/1	0.73	0.08	106,106,106,106	0
55	MG	RA	3095	1/1	0.73	0.22	79,79,79,79	0
55	MG	RA	3151	1/1	0.73	0.87	75,75,75,75	0
55	MG	XA	1611	1/1	0.74	0.21	40,40,40,40	0
55	MG	QA	1636	1/1	0.74	0.10	71,71,71,71	0
55	MG	RA	3173	1/1	0.74	0.25	52,52,52,52	0
55	MG	YA	3213	1/1	0.74	0.11	60,60,60,60	0
55	MG	RA	3312	1/1	0.74	0.27	78,78,78,78	0
55	MG	RA	3035	1/1	0.74	0.18	62,62,62,62	0
55	MG	YA	3294	1/1	0.74	0.15	59,59,59,59	0
55	MG	QA	1656	1/1	0.74	0.15	86,86,86,86	0
55	MG	RA	3250	1/1	0.74	0.13	82,82,82,82	0
55	MG	YB	202	1/1	0.74	0.24	47,47,47,47	0
55	MG	QA	1637	1/1	0.74	0.16	88,88,88,88	0
55	MG	RA	3156	1/1	0.74	0.14	89,89,89,89	0
55	MG	YA	3093	1/1	0.74	0.25	48,48,48,48	0
55	MG	YA	3097	1/1	0.74	0.18	60,60,60,60	0
55	MG	RA	3266	1/1	0.74	0.19	83,83,83,83	0
55	MG	Y0	101	1/1	0.74	0.27	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3292	1/1	0.75	0.22	66,66,66,66	0
55	MG	YA	3212	1/1	0.75	0.09	57,57,57,57	0
55	MG	RA	3236	1/1	0.75	0.10	93,93,93,93	0
55	MG	YA	3299	1/1	0.75	0.25	77,77,77,77	0
55	MG	RA	3300	1/1	0.75	0.39	76,76,76,76	0
55	MG	RA	3037	1/1	0.75	0.12	40,40,40,40	0
55	MG	YA	3283	1/1	0.75	0.34	59,59,59,59	0
55	MG	YA	3270	1/1	0.75	0.66	92,92,92,92	0
55	MG	YA	3430	1/1	0.75	0.25	46,46,46,46	0
55	MG	YA	3193	1/1	0.75	0.12	84,84,84,84	0
55	MG	RA	3348	1/1	0.75	0.15	92,92,92,92	0
55	MG	YA	3441	1/1	0.75	0.20	53,53,53,53	0
55	MG	RA	3082	1/1	0.76	0.24	58,58,58,58	0
55	MG	RA	3311	1/1	0.76	0.51	74,74,74,74	0
55	MG	XA	1616	1/1	0.76	0.19	99,99,99,99	0
55	MG	RA	3025	1/1	0.76	0.44	63,63,63,63	0
55	MG	RA	3071	1/1	0.76	0.14	86,86,86,86	0
55	MG	QA	1625	1/1	0.76	0.32	101,101,101,101	0
55	MG	QA	1634	1/1	0.76	0.10	61,61,61,61	0
55	MG	RA	3196	1/1	0.76	0.31	55,55,55,55	0
55	MG	YA	3415	1/1	0.76	0.38	74,74,74,74	0
55	MG	YA	3174	1/1	0.76	0.12	60,60,60,60	0
55	MG	YA	3128	1/1	0.76	0.22	42,42,42,42	0
55	MG	RA	3103	1/1	0.76	0.14	64,64,64,64	0
55	MG	RA	3146	1/1	0.76	0.16	77,77,77,77	0
55	MG	RA	3149	1/1	0.76	0.09	81,81,81,81	0
55	MG	YP	201	1/1	0.76	0.22	80,80,80,80	0
55	MG	RA	3190	1/1	0.76	0.39	81,81,81,81	0
55	MG	YA	3012	1/1	0.76	0.15	70,70,70,70	0
55	MG	YA	3375	1/1	0.77	0.33	66,66,66,66	0
55	MG	QA	1631	1/1	0.77	0.13	70,70,70,70	0
55	MG	YA	3105	1/1	0.77	0.24	54,54,54,54	0
55	MG	RA	3299	1/1	0.77	0.24	89,89,89,89	0
55	MG	YA	3153	1/1	0.77	0.28	60,60,60,60	0
55	MG	YA	3127	1/1	0.77	0.10	67,67,67,67	0
55	MG	YA	3177	1/1	0.77	0.27	55,55,55,55	0
55	MG	YA	3158	1/1	0.77	0.59	79,79,79,79	0
55	MG	YA	3362	1/1	0.77	0.10	75,75,75,75	0
55	MG	RA	3218	1/1	0.77	0.30	64,64,64,64	0
55	MG	YA	3399	1/1	0.77	0.22	35,35,35,35	0
55	MG	YA	3206	1/1	0.77	0.11	63,63,63,63	0
55	MG	YE	301	1/1	0.77	0.24	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3402	1/1	0.77	0.55	77,77,77,77	0
55	MG	XA	1625	1/1	0.77	0.22	73,73,73,73	0
55	MG	RA	3301	1/1	0.77	0.21	71,71,71,71	0
55	MG	YA	3200	1/1	0.78	0.44	75,75,75,75	0
55	MG	YA	3172	1/1	0.78	0.08	66,66,66,66	0
55	MG	YA	3139	1/1	0.78	0.22	47,47,47,47	0
55	MG	YA	3353	1/1	0.78	0.21	75,75,75,75	0
55	MG	YA	3431	1/1	0.78	0.30	24,24,24,24	0
55	MG	YA	3433	1/1	0.78	0.25	44,44,44,44	0
55	MG	RA	3152	1/1	0.78	0.25	92,92,92,92	0
55	MG	YA	3058	1/1	0.78	0.32	51,51,51,51	0
55	MG	RA	3079	1/1	0.78	0.20	63,63,63,63	0
55	MG	RA	3176	1/1	0.78	0.13	72,72,72,72	0
55	MG	YA	3155	1/1	0.78	0.14	56,56,56,56	0
55	MG	YA	3110	1/1	0.78	0.17	63,63,63,63	0
55	MG	YA	3364	1/1	0.78	0.20	54,54,54,54	0
55	MG	YA	3115	1/1	0.78	0.20	39,39,39,39	0
55	MG	YA	3278	1/1	0.78	0.17	107,107,107,107	0
55	MG	RA	3332	1/1	0.78	0.37	92,92,92,92	0
55	MG	RA	3298	1/1	0.78	0.21	62,62,62,62	0
55	MG	XA	1612	1/1	0.78	0.35	67,67,67,67	0
55	MG	YA	3382	1/1	0.78	0.10	69,69,69,69	0
55	MG	QA	1624	1/1	0.78	0.12	90,90,90,90	0
55	MG	YA	3418	1/1	0.78	0.15	74,74,74,74	0
55	MG	YA	3135	1/1	0.78	0.40	109,109,109,109	0
55	MG	RA	3055	1/1	0.78	0.07	97,97,97,97	0
55	MG	Y7	102	1/1	0.78	0.20	72,72,72,72	0
55	MG	RA	3046	1/1	0.79	0.25	33,33,33,33	0
55	MG	RA	3315	1/1	0.79	0.19	53,53,53,53	0
55	MG	YA	3204	1/1	0.79	0.25	63,63,63,63	0
55	MG	YA	3102	1/1	0.79	0.14	54,54,54,54	0
55	MG	RA	3161	1/1	0.79	0.22	74,74,74,74	0
55	MG	YA	3296	1/1	0.79	0.30	63,63,63,63	0
55	MG	RA	3186	1/1	0.79	0.50	80,80,80,80	0
55	MG	YA	3061	1/1	0.79	0.20	33,33,33,33	0
55	MG	YA	3113	1/1	0.79	0.51	72,72,72,72	0
55	MG	YA	3184	1/1	0.79	0.18	74,74,74,74	0
55	MG	QA	1604	1/1	0.79	0.27	58,58,58,58	0
55	MG	YA	3411	1/1	0.79	0.14	78,78,78,78	0
55	MG	RA	3355	1/1	0.79	0.21	46,46,46,46	0
55	MG	YA	3413	1/1	0.79	0.13	67,67,67,67	0
55	MG	RA	3235	1/1	0.79	0.16	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	XA	1665	1/1	0.79	0.18	114,114,114,114	0
55	MG	YA	3279	1/1	0.79	0.23	90,90,90,90	0
55	MG	RA	3090	1/1	0.79	0.08	80,80,80,80	0
55	MG	RA	3347	1/1	0.79	0.66	88,88,88,88	0
55	MG	YA	3256	1/1	0.79	0.28	70,70,70,70	0
55	MG	R1	101	1/1	0.79	0.16	59,59,59,59	0
55	MG	YA	3284	1/1	0.79	0.32	100,100,100,100	0
55	MG	YA	3432	1/1	0.80	0.43	38,38,38,38	0
55	MG	YA	3287	1/1	0.80	0.17	58,58,58,58	0
55	MG	YA	3243	1/1	0.80	0.23	85,85,85,85	0
55	MG	RA	3124	1/1	0.80	0.12	85,85,85,85	0
55	MG	YA	3131	1/1	0.80	0.09	74,74,74,74	0
55	MG	YA	3293	1/1	0.80	0.38	86,86,86,86	0
55	MG	RA	3131	1/1	0.80	0.15	75,75,75,75	0
55	MG	YA	3388	1/1	0.80	0.41	87,87,87,87	0
55	MG	RA	3016	1/1	0.80	0.28	52,52,52,52	0
55	MG	YA	3230	1/1	0.80	0.32	29,29,29,29	0
55	MG	YB	201	1/1	0.80	0.09	56,56,56,56	0
55	MG	YA	3165	1/1	0.80	0.15	71,71,71,71	0
55	MG	RA	3244	1/1	0.80	0.15	75,75,75,75	0
55	MG	RA	3373	1/1	0.80	0.27	93,93,93,93	0
55	MG	RA	3361	1/1	0.80	0.18	79,79,79,79	0
55	MG	YA	3422	1/1	0.80	0.42	77,77,77,77	0
55	MG	YA	3033	1/1	0.80	0.33	36,36,36,36	0
55	MG	QA	1633	1/1	0.80	0.27	96,96,96,96	0
55	MG	QA	1662	1/1	0.80	0.22	119,119,119,119	0
55	MG	RA	3123	1/1	0.80	0.17	66,66,66,66	0
55	MG	YA	3265	1/1	0.80	0.14	83,83,83,83	0
55	MG	YA	3258	1/1	0.81	0.23	53,53,53,53	0
55	MG	YA	3088	1/1	0.81	0.20	50,50,50,50	0
55	MG	RA	3042	1/1	0.81	0.30	56,56,56,56	0
55	MG	RA	3027	1/1	0.81	0.24	54,54,54,54	0
55	MG	YA	3099	1/1	0.81	0.36	37,37,37,37	0
55	MG	YA	3337	1/1	0.81	0.36	95,95,95,95	0
55	MG	XA	1663	1/1	0.81	0.35	72,72,72,72	0
55	MG	YA	3190	1/1	0.81	0.17	73,73,73,73	0
55	MG	RA	3047	1/1	0.81	0.18	47,47,47,47	0
55	MG	XA	1634	1/1	0.81	0.12	103,103,103,103	0
55	MG	QA	1606	1/1	0.81	0.23	88,88,88,88	0
55	MG	RA	3180	1/1	0.81	0.09	65,65,65,65	0
55	MG	QA	1658	1/1	0.81	0.14	79,79,79,79	0
55	MG	YA	3114	1/1	0.81	0.25	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3101	1/1	0.81	0.10	56,56,56,56	0
55	MG	YA	3276	1/1	0.81	0.32	70,70,70,70	0
55	MG	XA	1650	1/1	0.81	0.19	71,71,71,71	0
55	MG	YA	3126	1/1	0.81	0.12	59,59,59,59	0
55	MG	YA	3207	1/1	0.81	0.09	66,66,66,66	0
55	MG	QA	1610	1/1	0.81	0.14	44,44,44,44	0
55	MG	YA	3250	1/1	0.81	0.28	78,78,78,78	0
55	MG	YA	3074	1/1	0.81	0.32	66,66,66,66	0
55	MG	RA	3041	1/1	0.81	0.15	46,46,46,46	0
55	MG	RA	3110	1/1	0.81	0.14	64,64,64,64	0
55	MG	YA	3132	1/1	0.81	0.11	62,62,62,62	0
55	MG	RA	3200	1/1	0.81	0.22	68,68,68,68	0
55	MG	RA	3357	1/1	0.81	0.23	107,107,107,107	0
55	MG	RB	203	1/1	0.82	0.06	84,84,84,84	0
55	MG	RA	3039	1/1	0.82	0.23	72,72,72,72	0
55	MG	YA	3325	1/1	0.82	0.25	62,62,62,62	0
55	MG	YA	3098	1/1	0.82	0.11	53,53,53,53	0
55	MG	RA	3014	1/1	0.82	0.14	61,61,61,61	0
55	MG	YA	3385	1/1	0.82	0.23	68,68,68,68	0
55	MG	YA	3425	1/1	0.82	0.28	72,72,72,72	0
55	MG	QA	1668	1/1	0.82	0.14	79,79,79,79	0
55	MG	YA	3148	1/1	0.82	0.17	75,75,75,75	0
55	MG	YA	3334	1/1	0.82	0.26	75,75,75,75	0
55	MG	XA	1614	1/1	0.82	0.15	71,71,71,71	0
55	MG	YA	3191	1/1	0.82	0.12	68,68,68,68	0
55	MG	RA	3328	1/1	0.82	0.11	81,81,81,81	0
55	MG	QA	1646	1/1	0.82	0.12	118,118,118,118	0
55	MG	RA	3133	1/1	0.82	0.13	80,80,80,80	0
55	MG	RA	3115	1/1	0.82	0.46	60,60,60,60	0
55	MG	YA	3400	1/1	0.82	0.19	49,49,49,49	0
55	MG	XA	1631	1/1	0.82	0.08	86,86,86,86	0
55	MG	YA	3445	1/1	0.82	0.34	63,63,63,63	0
55	MG	RA	3257	1/1	0.82	0.36	56,56,56,56	0
55	MG	YA	3451	1/1	0.82	0.15	47,47,47,47	0
55	MG	YA	3116	1/1	0.82	0.30	51,51,51,51	0
55	MG	RA	3274	1/1	0.82	0.19	55,55,55,55	0
55	MG	YA	3354	1/1	0.82	0.23	82,82,82,82	0
55	MG	RA	3353	1/1	0.82	0.32	53,53,53,53	0
55	MG	RA	3018	1/1	0.82	0.09	33,33,33,33	0
55	MG	YA	3209	1/1	0.82	0.17	72,72,72,72	0
55	MG	XA	1638	1/1	0.82	0.21	63,63,63,63	0
55	MG	XA	1639	1/1	0.82	0.23	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3263	1/1	0.82	0.28	70,70,70,70	0
55	MG	YA	3176	1/1	0.82	0.16	58,58,58,58	0
55	MG	RA	3322	1/1	0.82	0.34	84,84,84,84	0
55	MG	RA	3005	1/1	0.82	0.21	46,46,46,46	0
57	ZN	R5	101	1/1	0.82	0.09	205,205,205,205	0
55	MG	RA	3140	1/1	0.83	0.19	61,61,61,61	0
55	MG	RA	3033	1/1	0.83	0.18	64,64,64,64	0
55	MG	YA	3437	1/1	0.83	0.26	61,61,61,61	0
55	MG	QA	1650	1/1	0.83	0.21	80,80,80,80	0
55	MG	YA	3439	1/1	0.83	0.29	70,70,70,70	0
55	MG	RA	3120	1/1	0.83	0.27	53,53,53,53	0
55	MG	XA	1641	1/1	0.83	0.12	104,104,104,104	0
55	MG	YA	3369	1/1	0.83	0.35	56,56,56,56	0
55	MG	RA	3074	1/1	0.83	0.10	43,43,43,43	0
55	MG	YA	3373	1/1	0.83	0.19	82,82,82,82	0
55	MG	RB	206	1/1	0.83	0.23	67,67,67,67	0
55	MG	YA	3380	1/1	0.83	0.21	60,60,60,60	0
55	MG	YA	3286	1/1	0.83	0.19	74,74,74,74	0
55	MG	YA	3192	1/1	0.83	0.13	70,70,70,70	0
55	MG	RA	3338	1/1	0.83	0.23	71,71,71,71	0
55	MG	YA	3026	1/1	0.83	0.19	35,35,35,35	0
55	MG	YA	3145	1/1	0.83	0.29	71,71,71,71	0
55	MG	RA	3314	1/1	0.83	0.16	81,81,81,81	0
55	MG	YA	3350	1/1	0.83	0.12	45,45,45,45	0
55	MG	RA	3040	1/1	0.83	0.23	100,100,100,100	0
55	MG	YA	3008	1/1	0.83	0.10	75,75,75,75	0
55	MG	YA	3321	1/1	0.83	0.27	56,56,56,56	0
55	MG	YQ	201	1/1	0.83	0.08	66,66,66,66	0
55	MG	RA	3116	1/1	0.83	0.30	64,64,64,64	0
55	MG	YR	201	1/1	0.83	0.22	39,39,39,39	0
55	MG	YA	3042	1/1	0.83	0.14	43,43,43,43	0
55	MG	YA	3277	1/1	0.83	0.43	81,81,81,81	0
55	MG	YA	3231	1/1	0.83	0.18	53,53,53,53	0
55	MG	YA	3133	1/1	0.84	0.37	53,53,53,53	0
55	MG	RA	3029	1/1	0.84	0.15	41,41,41,41	0
55	MG	YA	3179	1/1	0.84	0.18	34,34,34,34	0
55	MG	RA	3083	1/1	0.84	0.33	57,57,57,57	0
55	MG	RA	3017	1/1	0.84	0.20	56,56,56,56	0
55	MG	RA	3309	1/1	0.84	0.10	79,79,79,79	0
55	MG	QA	1620	1/1	0.84	0.12	85,85,85,85	0
55	MG	YA	3314	1/1	0.84	0.19	76,76,76,76	0
55	MG	RA	3022	1/1	0.84	0.16	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3316	1/1	0.84	0.36	68,68,68,68	0
55	MG	RA	3358	1/1	0.84	0.21	52,52,52,52	0
55	MG	YA	3359	1/1	0.84	0.24	56,56,56,56	0
55	MG	RA	3154	1/1	0.84	0.23	79,79,79,79	0
55	MG	RA	3258	1/1	0.84	0.32	79,79,79,79	0
55	MG	RA	3217	1/1	0.84	0.30	100,100,100,100	0
55	MG	RA	3050	1/1	0.84	0.37	57,57,57,57	0
55	MG	XA	1666	1/1	0.84	0.43	86,86,86,86	0
55	MG	YA	3366	1/1	0.84	0.17	56,56,56,56	0
55	MG	RA	3317	1/1	0.84	0.20	72,72,72,72	0
55	MG	RA	3097	1/1	0.84	0.19	64,64,64,64	0
55	MG	YA	3414	1/1	0.84	0.23	68,68,68,68	0
55	MG	QA	1644	1/1	0.84	0.10	73,73,73,73	0
55	MG	YA	3328	1/1	0.84	0.36	70,70,70,70	0
55	MG	YA	3004	1/1	0.84	0.09	61,61,61,61	0
55	MG	QA	1667	1/1	0.84	0.13	101,101,101,101	0
55	MG	QA	1639	1/1	0.84	0.09	65,65,65,65	0
55	MG	YA	3332	1/1	0.84	0.17	87,87,87,87	0
55	MG	RA	3142	1/1	0.84	0.28	85,85,85,85	0
55	MG	RA	3143	1/1	0.84	0.19	78,78,78,78	0
55	MG	YA	3082	1/1	0.84	0.29	45,45,45,45	0
55	MG	RA	3105	1/1	0.84	0.14	64,64,64,64	0
57	ZN	YY	201	1/1	0.84	0.11	211,211,211,211	0
55	MG	XA	1649	1/1	0.85	0.09	67,67,67,67	0
55	MG	YA	3396	1/1	0.85	0.15	59,59,59,59	0
55	MG	RA	3241	1/1	0.85	0.20	78,78,78,78	0
55	MG	YA	3289	1/1	0.85	0.28	51,51,51,51	0
55	MG	YA	3196	1/1	0.85	0.13	74,74,74,74	0
55	MG	RA	3243	1/1	0.85	0.11	59,59,59,59	0
55	MG	RA	3067	1/1	0.85	0.28	82,82,82,82	0
55	MG	RA	3159	1/1	0.85	0.21	84,84,84,84	0
55	MG	RA	3068	1/1	0.85	0.18	57,57,57,57	0
55	MG	RA	3069	1/1	0.85	0.20	53,53,53,53	0
55	MG	RA	3034	1/1	0.85	0.10	58,58,58,58	0
55	MG	RA	3293	1/1	0.85	0.17	69,69,69,69	0
55	MG	RA	3294	1/1	0.85	0.08	54,54,54,54	0
55	MG	RA	3320	1/1	0.85	0.15	85,85,85,85	0
55	MG	RA	3061	1/1	0.85	0.11	71,71,71,71	0
55	MG	YA	3370	1/1	0.85	0.26	65,65,65,65	0
55	MG	RA	3106	1/1	0.85	0.17	66,66,66,66	0
55	MG	YA	3275	1/1	0.85	0.30	66,66,66,66	0
55	MG	RA	3168	1/1	0.85	0.08	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3249	1/1	0.85	0.27	79,79,79,79	0
55	MG	RA	3170	1/1	0.85	0.15	66,66,66,66	0
55	MG	RA	3049	1/1	0.85	0.10	58,58,58,58	0
55	MG	YA	3383	1/1	0.85	0.53	56,56,56,56	0
55	MG	RA	3094	1/1	0.85	0.13	32,32,32,32	0
55	MG	YA	3343	1/1	0.85	0.27	77,77,77,77	0
55	MG	RA	3002	1/1	0.85	0.37	68,68,68,68	0
55	MG	RA	3379	1/1	0.85	0.10	65,65,65,65	0
55	MG	YA	3255	1/1	0.85	0.20	68,68,68,68	0
55	MG	YA	3162	1/1	0.85	0.31	72,72,72,72	0
55	MG	RA	3221	1/1	0.85	0.18	72,72,72,72	0
55	MG	RA	3114	1/1	0.86	0.10	39,39,39,39	0
55	MG	YA	3356	1/1	0.86	0.08	44,44,44,44	0
55	MG	YA	3229	1/1	0.86	0.41	60,60,60,60	0
55	MG	YA	3320	1/1	0.86	0.13	59,59,59,59	0
55	MG	RA	3181	1/1	0.86	0.25	81,81,81,81	0
55	MG	YA	3027	1/1	0.86	0.23	44,44,44,44	0
55	MG	RA	3276	1/1	0.86	0.19	54,54,54,54	0
55	MG	RA	3329	1/1	0.86	0.12	62,62,62,62	0
55	MG	YA	3096	1/1	0.86	0.21	52,52,52,52	0
55	MG	RA	3011	1/1	0.86	0.23	55,55,55,55	0
55	MG	YA	3203	1/1	0.86	0.22	80,80,80,80	0
55	MG	RA	3122	1/1	0.86	0.12	61,61,61,61	0
55	MG	RA	3155	1/1	0.86	0.29	82,82,82,82	0
55	MG	YA	3138	1/1	0.86	0.28	56,56,56,56	0
55	MG	RA	3175	1/1	0.86	0.12	89,89,89,89	0
55	MG	YA	3142	1/1	0.86	0.43	51,51,51,51	0
55	MG	YA	3247	1/1	0.86	0.26	63,63,63,63	0
55	MG	YA	3055	1/1	0.86	0.14	41,41,41,41	0
55	MG	YA	3376	1/1	0.86	0.19	83,83,83,83	0
55	MG	QA	1643	1/1	0.86	0.09	96,96,96,96	0
55	MG	YA	3340	1/1	0.86	0.20	42,42,42,42	0
55	MG	RA	3088	1/1	0.86	0.28	52,52,52,52	0
55	MG	YA	3106	1/1	0.86	0.13	42,42,42,42	0
55	MG	RA	3226	1/1	0.86	0.15	67,67,67,67	0
55	MG	RA	3340	1/1	0.86	0.20	86,86,86,86	0
55	MG	RA	3290	1/1	0.86	0.15	60,60,60,60	0
55	MG	RA	3291	1/1	0.86	0.19	69,69,69,69	0
55	MG	Y5	102	1/1	0.86	0.12	54,54,54,54	0
55	MG	Y7	101	1/1	0.86	0.33	44,44,44,44	0
55	MG	RA	3310	1/1	0.86	0.14	81,81,81,81	0
55	MG	XA	1662	1/1	0.86	0.08	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3161	1/1	0.86	0.08	59,59,59,59	0
55	MG	RA	3137	1/1	0.87	0.11	81,81,81,81	0
55	MG	YA	3031	1/1	0.87	0.26	36,36,36,36	0
55	MG	YA	3345	1/1	0.87	0.16	54,54,54,54	0
55	MG	RA	3064	1/1	0.87	0.12	64,64,64,64	0
55	MG	RA	3271	1/1	0.87	0.12	74,74,74,74	0
55	MG	YA	3295	1/1	0.87	0.10	30,30,30,30	0
55	MG	YA	3037	1/1	0.87	0.13	32,32,32,32	0
55	MG	YA	3450	1/1	0.87	0.21	33,33,33,33	0
55	MG	YA	3089	1/1	0.87	0.17	23,23,23,23	0
55	MG	YA	3091	1/1	0.87	0.22	51,51,51,51	0
55	MG	RA	3288	1/1	0.87	0.11	76,76,76,76	0
55	MG	RA	3262	1/1	0.87	0.14	101,101,101,101	0
55	MG	RA	3144	1/1	0.87	0.12	61,61,61,61	0
55	MG	YB	205	1/1	0.87	0.25	52,52,52,52	0
55	MG	RA	3307	1/1	0.87	0.10	77,77,77,77	0
55	MG	RA	3020	1/1	0.87	0.11	51,51,51,51	0
55	MG	RA	3147	1/1	0.87	0.17	83,83,83,83	0
55	MG	RA	3238	1/1	0.87	0.11	67,67,67,67	0
55	MG	RA	3072	1/1	0.87	0.25	68,68,68,68	0
55	MG	QA	1648	1/1	0.87	0.33	80,80,80,80	0
55	MG	YA	3429	1/1	0.87	0.18	41,41,41,41	0
55	MG	YA	3201	1/1	0.87	0.09	65,65,65,65	0
55	MG	YA	3175	1/1	0.87	0.09	59,59,59,59	0
55	MG	YA	3072	1/1	0.87	0.27	33,33,33,33	0
55	MG	XA	1622	1/1	0.87	0.21	58,58,58,58	0
55	MG	RA	3296	1/1	0.87	0.19	71,71,71,71	0
55	MG	YA	3371	1/1	0.87	0.07	56,56,56,56	0
55	MG	YA	3078	1/1	0.87	0.09	59,59,59,59	0
55	MG	RA	3129	1/1	0.88	0.09	59,59,59,59	0
55	MG	XA	1664	1/1	0.88	0.16	66,66,66,66	0
55	MG	RA	3130	1/1	0.88	0.15	55,55,55,55	0
55	MG	YA	3403	1/1	0.88	0.19	74,74,74,74	0
55	MG	YA	3304	1/1	0.88	0.35	86,86,86,86	0
55	MG	RA	3102	1/1	0.88	0.16	76,76,76,76	0
55	MG	RA	3233	1/1	0.88	0.09	87,87,87,87	0
55	MG	RA	3365	1/1	0.88	0.43	53,53,53,53	0
55	MG	YA	3338	1/1	0.88	0.33	87,87,87,87	0
55	MG	YA	3077	1/1	0.88	0.13	35,35,35,35	0
55	MG	RA	3070	1/1	0.88	0.21	61,61,61,61	0
55	MG	QA	1615	1/1	0.88	0.11	83,83,83,83	0
55	MG	YA	3006	1/1	0.88	0.10	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3454	1/1	0.88	0.18	140,140,140,140	0
55	MG	YA	3157	1/1	0.88	0.17	79,79,79,79	0
55	MG	RA	3080	1/1	0.88	0.18	46,46,46,46	0
55	MG	RA	3369	1/1	0.88	0.15	74,74,74,74	0
55	MG	YA	3086	1/1	0.88	0.18	34,34,34,34	0
55	MG	RA	3237	1/1	0.88	0.31	75,75,75,75	0
55	MG	YA	3228	1/1	0.88	0.26	25,25,25,25	0
55	MG	XA	1657	1/1	0.88	0.10	91,91,91,91	0
55	MG	YA	3049	1/1	0.88	0.19	40,40,40,40	0
55	MG	YA	3053	1/1	0.88	0.09	41,41,41,41	0
55	MG	YA	3390	1/1	0.88	0.11	86,86,86,86	0
55	MG	YA	3054	1/1	0.88	0.20	42,42,42,42	0
55	MG	YA	3168	1/1	0.88	0.20	54,54,54,54	0
55	MG	YA	3427	1/1	0.88	0.12	48,48,48,48	0
55	MG	YA	3134	1/1	0.88	0.11	61,61,61,61	0
55	MG	RA	3054	1/1	0.88	0.13	57,57,57,57	0
55	MG	RA	3028	1/1	0.88	0.44	40,40,40,40	0
55	MG	YA	3137	1/1	0.88	0.16	50,50,50,50	0
55	MG	RA	3126	1/1	0.88	0.15	65,65,65,65	0
55	MG	RA	3281	1/1	0.89	0.06	68,68,68,68	0
55	MG	YA	3355	1/1	0.89	0.18	57,57,57,57	0
55	MG	QA	1616	1/1	0.89	0.18	109,109,109,109	0
55	MG	RA	3091	1/1	0.89	0.08	62,62,62,62	0
55	MG	RA	3354	1/1	0.89	0.22	15,15,15,15	0
55	MG	XA	1604	1/1	0.89	0.21	73,73,73,73	0
55	MG	YA	3159	1/1	0.89	0.15	60,60,60,60	0
55	MG	RA	3038	1/1	0.89	0.21	51,51,51,51	0
55	MG	YA	3298	1/1	0.89	0.26	47,47,47,47	0
55	MG	YA	3436	1/1	0.89	0.14	39,39,39,39	0
55	MG	YA	3216	1/1	0.89	0.14	56,56,56,56	0
55	MG	RA	3160	1/1	0.89	0.12	55,55,55,55	0
55	MG	YA	3219	1/1	0.89	0.26	48,48,48,48	0
55	MG	YA	3240	1/1	0.89	0.48	41,41,41,41	0
55	MG	RA	3287	1/1	0.89	0.32	60,60,60,60	0
55	MG	RA	3084	1/1	0.89	0.24	96,96,96,96	0
55	MG	RA	3179	1/1	0.89	0.08	112,112,112,112	0
55	MG	RA	3259	1/1	0.89	0.10	48,48,48,48	0
55	MG	YA	3021	1/1	0.89	0.23	32,32,32,32	0
57	ZN	R4	101	1/1	0.89	0.12	301,301,301,301	0
55	MG	RA	3096	1/1	0.89	0.07	55,55,55,55	0
55	MG	YA	3081	1/1	0.89	0.23	33,33,33,33	0
57	ZN	Y4	101	1/1	0.89	0.11	321,321,321,321	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3378	1/1	0.90	0.06	79,79,79,79	0
55	MG	RA	3178	1/1	0.90	0.21	57,57,57,57	0
55	MG	QA	1638	1/1	0.90	0.19	93,93,93,93	0
55	MG	YA	3017	1/1	0.90	0.22	40,40,40,40	0
55	MG	YA	3217	1/1	0.90	0.42	46,46,46,46	0
55	MG	RA	3052	1/1	0.90	0.08	87,87,87,87	0
55	MG	QA	1609	1/1	0.90	0.10	62,62,62,62	0
55	MG	RA	3231	1/1	0.90	0.29	77,77,77,77	0
55	MG	YA	3025	1/1	0.90	0.15	43,43,43,43	0
55	MG	YA	3186	1/1	0.90	0.22	72,72,72,72	0
55	MG	YA	3067	1/1	0.90	0.16	73,73,73,73	0
55	MG	QA	1614	1/1	0.90	0.10	80,80,80,80	0
55	MG	YA	3112	1/1	0.90	0.17	60,60,60,60	0
55	MG	RA	3121	1/1	0.90	0.22	64,64,64,64	0
55	MG	RA	3305	1/1	0.90	0.10	59,59,59,59	0
55	MG	YA	3030	1/1	0.90	0.22	55,55,55,55	0
55	MG	QA	1617	1/1	0.90	0.43	79,79,79,79	0
55	MG	RA	3185	1/1	0.90	0.07	44,44,44,44	0
55	MG	YA	3118	1/1	0.90	0.16	47,47,47,47	0
55	MG	YA	3120	1/1	0.90	0.40	47,47,47,47	0
55	MG	YA	3121	1/1	0.90	0.22	55,55,55,55	0
55	MG	YB	208	1/1	0.90	0.08	66,66,66,66	0
55	MG	YD	301	1/1	0.90	0.10	44,44,44,44	0
55	MG	YA	3420	1/1	0.90	0.13	79,79,79,79	0
55	MG	YA	3123	1/1	0.90	0.33	41,41,41,41	0
55	MG	RA	3371	1/1	0.90	0.15	48,48,48,48	0
55	MG	YA	3036	1/1	0.90	0.22	26,26,26,26	0
55	MG	YA	3346	1/1	0.90	0.11	73,73,73,73	0
55	MG	QA	1619	1/1	0.90	0.10	90,90,90,90	0
55	MG	RA	3277	1/1	0.90	0.42	76,76,76,76	0
55	MG	RA	3374	1/1	0.90	0.05	63,63,63,63	0
55	MG	YA	3044	1/1	0.90	0.20	48,48,48,48	0
55	MG	YA	3171	1/1	0.90	0.10	40,40,40,40	0
55	MG	RA	3164	1/1	0.90	0.21	45,45,45,45	0
55	MG	RA	3078	1/1	0.90	0.07	70,70,70,70	0
55	MG	YA	3051	1/1	0.90	0.29	48,48,48,48	0
55	MG	YA	3435	1/1	0.90	0.18	46,46,46,46	0
55	MG	RA	3127	1/1	0.91	0.13	84,84,84,84	0
55	MG	QA	1642	1/1	0.91	0.10	110,110,110,110	0
55	MG	YA	3060	1/1	0.91	0.22	36,36,36,36	0
55	MG	RA	3169	1/1	0.91	0.23	52,52,52,52	0
55	MG	QA	1655	1/1	0.91	0.08	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3404	1/1	0.91	0.08	92,92,92,92	0
55	MG	YA	3107	1/1	0.91	0.09	41,41,41,41	0
55	MG	RA	3053	1/1	0.91	0.14	42,42,42,42	0
55	MG	QA	1630	1/1	0.91	0.30	114,114,114,114	0
55	MG	YA	3365	1/1	0.91	0.14	76,76,76,76	0
55	MG	RA	3023	1/1	0.91	0.18	76,76,76,76	0
55	MG	YA	3149	1/1	0.91	0.12	60,60,60,60	0
55	MG	YA	3221	1/1	0.91	0.20	27,27,27,27	0
55	MG	YA	3152	1/1	0.91	0.10	89,89,89,89	0
55	MG	RA	3202	1/1	0.91	0.21	52,52,52,52	0
55	MG	RA	3174	1/1	0.91	0.14	37,37,37,37	0
55	MG	XA	1648	1/1	0.91	0.26	73,73,73,73	0
55	MG	YA	3035	1/1	0.91	0.19	43,43,43,43	0
55	MG	YA	3007	1/1	0.91	0.10	64,64,64,64	0
55	MG	RA	3024	1/1	0.91	0.10	44,44,44,44	0
55	MG	YA	3038	1/1	0.91	0.14	33,33,33,33	0
55	MG	YA	3122	1/1	0.91	0.33	54,54,54,54	0
55	MG	QA	1651	1/1	0.91	0.07	70,70,70,70	0
55	MG	XA	1619	1/1	0.91	0.09	39,39,39,39	0
55	MG	YA	3271	1/1	0.91	0.20	48,48,48,48	0
55	MG	RA	3283	1/1	0.91	0.10	63,63,63,63	0
55	MG	RA	3334	1/1	0.91	0.36	75,75,75,75	0
55	MG	YA	3046	1/1	0.91	0.17	37,37,37,37	0
55	MG	XA	1626	1/1	0.91	0.06	88,88,88,88	0
55	MG	QA	1623	1/1	0.91	0.05	92,92,92,92	0
55	MG	YA	3052	1/1	0.91	0.29	52,52,52,52	0
55	MG	YA	3241	1/1	0.91	0.22	54,54,54,54	0
55	MG	RA	3318	1/1	0.91	0.05	66,66,66,66	0
55	MG	QA	1665	1/1	0.91	0.18	82,82,82,82	0
57	ZN	XN	101	1/1	0.91	0.07	237,237,237,237	0
55	MG	YA	3244	1/1	0.91	0.16	57,57,57,57	0
55	MG	RA	3086	1/1	0.91	0.24	72,72,72,72	0
55	MG	YA	3103	1/1	0.92	0.14	54,54,54,54	0
55	MG	XA	1640	1/1	0.92	0.08	79,79,79,79	0
55	MG	RA	3032	1/1	0.92	0.16	52,52,52,52	0
55	MG	RA	3058	1/1	0.92	0.10	65,65,65,65	0
55	MG	RA	3060	1/1	0.92	0.17	61,61,61,61	0
55	MG	QA	1649	1/1	0.92	0.18	95,95,95,95	0
55	MG	XA	1620	1/1	0.92	0.17	63,63,63,63	0
55	MG	YA	3146	1/1	0.92	0.18	41,41,41,41	0
55	MG	QA	1629	1/1	0.92	0.07	83,83,83,83	0
55	MG	XA	1623	1/1	0.92	0.07	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3360	1/1	0.92	0.09	94,94,94,94	0
55	MG	YA	3151	1/1	0.92	0.24	51,51,51,51	0
55	MG	RA	3377	1/1	0.92	0.14	42,42,42,42	0
55	MG	XA	1628	1/1	0.92	0.15	76,76,76,76	0
55	MG	YA	3013	1/1	0.92	0.29	38,38,38,38	0
55	MG	QV	101	1/1	0.92	0.23	98,98,98,98	0
55	MG	RA	3167	1/1	0.92	0.22	70,70,70,70	0
55	MG	RA	3036	1/1	0.92	0.16	43,43,43,43	0
55	MG	RA	3207	1/1	0.92	0.33	78,78,78,78	0
55	MG	RA	3145	1/1	0.92	0.22	82,82,82,82	0
55	MG	YA	3261	1/1	0.92	0.10	38,38,38,38	0
55	MG	YA	3092	1/1	0.92	0.06	61,61,61,61	0
55	MG	RA	3336	1/1	0.92	0.08	75,75,75,75	0
55	MG	YA	3095	1/1	0.92	0.10	39,39,39,39	0
55	MG	RA	3158	1/1	0.92	0.12	100,100,100,100	0
55	MG	YA	3056	1/1	0.92	0.10	47,47,47,47	0
57	ZN	QN	101	1/1	0.92	0.12	211,211,211,211	0
55	MG	YA	3166	1/1	0.92	0.20	60,60,60,60	0
55	MG	XA	1636	1/1	0.92	0.07	78,78,78,78	0
55	MG	RA	3010	1/1	0.92	0.16	36,36,36,36	0
55	MG	QA	1605	1/1	0.92	0.06	99,99,99,99	0
55	MG	XE	201	1/1	0.92	0.06	61,61,61,61	0
57	ZN	Y5	101	1/1	0.92	0.07	242,242,242,242	0
55	MG	YA	3394	1/1	0.93	0.16	79,79,79,79	0
55	MG	YA	3068	1/1	0.93	0.08	38,38,38,38	0
55	MG	YA	3288	1/1	0.93	0.16	79,79,79,79	0
55	MG	YA	3071	1/1	0.93	0.15	63,63,63,63	0
55	MG	XA	1624	1/1	0.93	0.07	106,106,106,106	0
55	MG	YA	3073	1/1	0.93	0.12	40,40,40,40	0
55	MG	RA	3188	1/1	0.93	0.07	48,48,48,48	0
55	MG	YA	3245	1/1	0.93	0.19	33,33,33,33	0
55	MG	QA	1601	1/1	0.93	0.26	49,49,49,49	0
55	MG	XA	1642	1/1	0.93	0.08	59,59,59,59	0
55	MG	YA	3150	1/1	0.93	0.11	59,59,59,59	0
55	MG	RA	3364	1/1	0.93	0.07	50,50,50,50	0
55	MG	RA	3128	1/1	0.93	0.05	67,67,67,67	0
55	MG	YA	3434	1/1	0.93	0.20	29,29,29,29	0
55	MG	YA	3130	1/1	0.93	0.09	41,41,41,41	0
55	MG	YA	3154	1/1	0.93	0.08	51,51,51,51	0
55	MG	QA	1632	1/1	0.93	0.04	88,88,88,88	0
55	MG	YR	202	1/1	0.93	0.11	15,15,15,15	0
55	MG	RA	3043	1/1	0.93	0.17	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3280	1/1	0.93	0.26	86,86,86,86	0
55	MG	RA	3261	1/1	0.93	0.07	50,50,50,50	0
55	MG	YA	3059	1/1	0.93	0.16	47,47,47,47	0
55	MG	XA	1651	1/1	0.93	0.05	93,93,93,93	0
55	MG	RA	3157	1/1	0.93	0.12	93,93,93,93	0
55	MG	RA	3337	1/1	0.93	0.06	83,83,83,83	0
55	MG	RA	3059	1/1	0.93	0.09	25,25,25,25	0
55	MG	YA	3448	1/1	0.93	0.07	47,47,47,47	0
55	MG	RA	3076	1/1	0.93	0.09	43,43,43,43	0
55	MG	YA	3393	1/1	0.93	0.20	67,67,67,67	0
57	ZN	Y9	101	1/1	0.93	0.09	102,102,102,102	0
55	MG	YA	3210	1/1	0.94	0.13	44,44,44,44	0
55	MG	RA	3075	1/1	0.94	0.29	62,62,62,62	0
55	MG	YA	3386	1/1	0.94	0.18	50,50,50,50	0
55	MG	RA	3012	1/1	0.94	0.07	38,38,38,38	0
55	MG	RA	3021	1/1	0.94	0.13	57,57,57,57	0
55	MG	YA	3178	1/1	0.94	0.18	79,79,79,79	0
55	MG	YA	3094	1/1	0.94	0.13	11,11,11,11	0
55	MG	YA	3034	1/1	0.94	0.16	36,36,36,36	0
55	MG	RB	202	1/1	0.94	0.05	65,65,65,65	0
55	MG	YA	3125	1/1	0.94	0.07	53,53,53,53	0
55	MG	YA	3237	1/1	0.94	0.32	52,52,52,52	0
55	MG	YA	3111	1/1	0.94	0.11	37,37,37,37	0
55	MG	YA	3202	1/1	0.94	0.04	52,52,52,52	0
55	MG	YA	3141	1/1	0.94	0.08	54,54,54,54	0
55	MG	YA	3333	1/1	0.94	0.07	91,91,91,91	0
55	MG	YA	3047	1/1	0.94	0.25	39,39,39,39	0
55	MG	YA	3377	1/1	0.94	0.09	69,69,69,69	0
57	ZN	RY	201	1/1	0.94	0.07	169,169,169,169	0
55	MG	YA	3378	1/1	0.94	0.10	65,65,65,65	0
55	MG	YA	3379	1/1	0.94	0.10	58,58,58,58	0
57	ZN	R9	101	1/1	0.94	0.11	137,137,137,137	0
55	MG	XA	1644	1/1	0.94	0.06	85,85,85,85	0
55	MG	YA	3018	1/1	0.94	0.13	47,47,47,47	0
55	MG	YA	3428	1/1	0.94	0.08	38,38,38,38	0
55	MG	YA	3075	1/1	0.94	0.15	45,45,45,45	0
55	MG	QA	1641	1/1	0.94	0.08	113,113,113,113	0
55	MG	YA	3140	1/1	0.95	0.10	35,35,35,35	0
55	MG	RA	3065	1/1	0.95	0.05	54,54,54,54	0
55	MG	RA	3118	1/1	0.95	0.11	59,59,59,59	0
55	MG	RA	3323	1/1	0.95	0.06	64,64,64,64	0
55	MG	YA	3005	1/1	0.95	0.13	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3101	1/1	0.95	0.14	20,20,20,20	0
55	MG	RA	3272	1/1	0.95	0.04	64,64,64,64	0
55	MG	RA	3220	1/1	0.95	0.15	64,64,64,64	0
55	MG	YA	3040	1/1	0.95	0.07	48,48,48,48	0
55	MG	YA	3041	1/1	0.95	0.09	22,22,22,22	0
55	MG	RA	3125	1/1	0.95	0.05	66,66,66,66	0
55	MG	YA	3327	1/1	0.95	0.09	47,47,47,47	0
55	MG	YA	3043	1/1	0.95	0.29	47,47,47,47	0
55	MG	YA	3108	1/1	0.95	0.07	48,48,48,48	0
55	MG	YA	3063	1/1	0.95	0.17	51,51,51,51	0
55	MG	RA	3148	1/1	0.95	0.14	60,60,60,60	0
55	MG	RA	3242	1/1	0.95	0.06	66,66,66,66	0
55	MG	RA	3232	1/1	0.95	0.25	56,56,56,56	0
55	MG	RA	3108	1/1	0.95	0.10	90,90,90,90	0
55	MG	RA	3073	1/1	0.95	0.10	52,52,52,52	0
55	MG	YA	3269	1/1	0.95	0.18	49,49,49,49	0
55	MG	RA	3009	1/1	0.95	0.10	55,55,55,55	0
55	MG	RA	3100	1/1	0.95	0.05	89,89,89,89	0
55	MG	RA	3045	1/1	0.96	0.05	36,36,36,36	0
55	MG	RA	3135	1/1	0.96	0.08	103,103,103,103	0
55	MG	QA	1654	1/1	0.96	0.06	88,88,88,88	0
55	MG	RA	3302	1/1	0.96	0.06	59,59,59,59	0
55	MG	YA	3080	1/1	0.96	0.17	68,68,68,68	0
55	MG	XA	1601	1/1	0.96	0.16	81,81,81,81	0
55	MG	YA	3208	1/1	0.96	0.12	61,61,61,61	0
55	MG	XA	1661	1/1	0.96	0.15	51,51,51,51	0
55	MG	XA	1602	1/1	0.96	0.09	81,81,81,81	0
55	MG	RA	3303	1/1	0.96	0.08	79,79,79,79	0
55	MG	YA	3185	1/1	0.96	0.09	84,84,84,84	0
55	MG	YA	3349	1/1	0.96	0.07	49,49,49,49	0
55	MG	QA	1611	1/1	0.96	0.14	46,46,46,46	0
55	MG	YA	3087	1/1	0.96	0.20	21,21,21,21	0
55	MG	XA	1645	1/1	0.96	0.21	111,111,111,111	0
55	MG	RA	3092	1/1	0.96	0.18	62,62,62,62	0
55	MG	RA	3104	1/1	0.96	0.16	58,58,58,58	0
55	MG	RA	3093	1/1	0.96	0.06	60,60,60,60	0
55	MG	RA	3189	1/1	0.96	0.07	85,85,85,85	0
55	MG	RA	3048	1/1	0.96	0.04	46,46,46,46	0
55	MG	YA	3070	1/1	0.96	0.14	38,38,38,38	0
55	MG	RA	3031	1/1	0.96	0.08	50,50,50,50	0
55	MG	YA	3223	1/1	0.96	0.28	45,45,45,45	0
55	MG	QA	1622	1/1	0.96	0.10	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3048	1/1	0.96	0.17	10,10,10,10	0
55	MG	YA	3124	1/1	0.96	0.13	48,48,48,48	0
55	MG	YA	3452	1/1	0.96	0.06	41,41,41,41	0
55	MG	RA	3087	1/1	0.96	0.08	33,33,33,33	0
55	MG	QA	1657	1/1	0.96	0.09	81,81,81,81	0
55	MG	YA	3069	1/1	0.97	0.10	30,30,30,30	0
55	MG	QA	1669	1/1	0.97	0.09	116,116,116,116	0
55	MG	RA	3066	1/1	0.97	0.05	80,80,80,80	0
55	MG	QA	1618	1/1	0.97	0.04	72,72,72,72	0
55	MG	YA	3090	1/1	0.97	0.10	47,47,47,47	0
55	MG	YA	3446	1/1	0.97	0.08	43,43,43,43	0
55	MG	RA	3098	1/1	0.97	0.06	56,56,56,56	0
55	MG	XA	1617	1/1	0.97	0.09	57,57,57,57	0
55	MG	XA	1637	1/1	0.97	0.06	90,90,90,90	0
55	MG	RB	208	1/1	0.97	0.08	67,67,67,67	0
55	MG	YA	3023	1/1	0.97	0.13	52,52,52,52	0
56	SF4	XD	301	8/8	0.97	0.06	128,182,257,300	0
55	MG	XA	1667	1/1	0.97	0.05	82,82,82,82	0
55	MG	YA	3050	1/1	0.97	0.08	51,51,51,51	0
55	MG	QA	1608	1/1	0.97	0.09	64,64,64,64	0
55	MG	YA	3374	1/1	0.97	0.11	66,66,66,66	0
55	MG	YA	3065	1/1	0.97	0.15	43,43,43,43	0
55	MG	YA	3336	1/1	0.97	0.07	27,27,27,27	0
55	MG	YA	3066	1/1	0.97	0.13	50,50,50,50	0
55	MG	YA	3119	1/1	0.97	0.08	42,42,42,42	0
55	MG	XA	1658	1/1	0.97	0.06	89,89,89,89	0
55	MG	RA	3019	1/1	0.97	0.07	49,49,49,49	0
55	MG	XA	1615	1/1	0.98	0.08	51,51,51,51	0
56	SF4	QD	301	8/8	0.98	0.05	161,182,293,373	0
55	MG	XA	1627	1/1	0.98	0.04	118,118,118,118	0
55	MG	XA	1621	1/1	0.98	0.11	54,54,54,54	0
55	MG	YA	3352	1/1	0.98	0.07	35,35,35,35	0
55	MG	YA	3180	1/1	0.98	0.05	65,65,65,65	0
55	MG	RA	3304	1/1	0.98	0.07	82,82,82,82	0
57	ZN	R6	101	1/1	0.98	0.04	109,109,109,109	0
55	MG	QA	1627	1/1	0.98	0.04	60,60,60,60	0
55	MG	YB	203	1/1	0.98	0.05	44,44,44,44	0
55	MG	XA	1618	1/1	0.98	0.07	46,46,46,46	0
55	MG	YA	3447	1/1	0.98	0.27	15,15,15,15	0
55	MG	YA	3029	1/1	0.98	0.08	38,38,38,38	0
57	ZN	Y6	101	1/1	0.98	0.06	98,98,98,98	0
55	MG	RA	3107	1/1	0.98	0.07	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3195	1/1	0.99	0.04	74,74,74,74	0
55	MG	YA	3085	1/1	0.99	0.03	24,24,24,24	0
55	MG	RA	3044	1/1	0.99	0.04	46,46,46,46	0
55	MG	YA	3019	1/1	0.99	0.07	48,48,48,48	0
55	MG	RA	3013	1/1	0.99	0.03	52,52,52,52	0
55	MG	YA	3109	1/1	0.99	0.03	45,45,45,45	0
55	MG	YA	3020	1/1	1.00	0.09	47,47,47,47	0

6.5 Other polymers (i)

There are no such residues in this entry.